

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

VOL. L. No. 7. }
WEEKLY.

BALTIMORE, AUGUST 30, 1906.

\$4.00 A YEAR.
{ SINGLE COPIES, 10 CENTS.

Manufacturers' Record.

PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS' RECORD PUBLISHING CO.

BALTIMORE,

RICHARD H. EDMONDS, President.
THOMAS P. GRASTY, Vice-President.
FRANK GOULD, Secretary.
VICTOR H. POWER, Treasurer.

RICHARD H. EDMONDS,
Editor and General Manager.

THOMAS P. GRASTY,
General Staff Correspondent.

Branch Offices:

New York—52 Broadway.
Boston—170 Summer Street.
Chicago—505 Fisher Building.
St. Louis—319 Equitable Building.

Charleston, W. Va.—ALBERT PHENIS,
Special Correspondent for West Virginia,
Kentucky and Southwest Virginia.

Subscription, - - - - - \$4 a year
(payable in advance) to United States,
Canada, Mexico, Cuba, Porto Rico, Hawaii
and the Philippines.

To Foreign Countries in the Postal Union,
\$6.50 a year.

[Entered at the Baltimore Postoffice as sec-
ond-class matter.]

BALTIMORE, AUGUST 30, 1906.

A GRAVE ERROR.

To Real Reformer: Your query is probably the result of a misconception of the purport of an executive order for the promotion of simplified spelling reform. No executive order that government documents shall be printed in red, white and blue ink has been issued—yet.

FIREPROOF COTTON WARE- HOUSES.

The persistent advocacy by the MANUFACTURERS' RECORD for the last eight or ten years of the building of fireproof cotton warehouses throughout the South, with sufficient financial backing to make their receipts gilt-edge as collateral, is now producing fruit. Gradually during the last three or four years the South has been taking up this important matter, and here and there substantial warehouses have been constructed. Now this is spreading in many directions, and warehouses are going up in a large number of leading cotton centers of the South. We publish today full particulars of the great system now under construction at Memphis, where 160 one-story warehouses designed to minimize the hauling and handling of cotton are being constructed by one company. This, the greatest undertaking of the kind which the South has seen, is being supplemented at Macon, where a company has just been organized to build 20 or more warehouses to hold 1000 bales of cotton each, and at many other points where the good work is being carried on. To a large extent these ware-

houses are being built of concrete, and those at Memphis especially are being equipped with many new labor-saving devices for handling cotton at the lowest possible cost.

With such a system of warehouses established throughout the South it will no longer be necessary for cotton to be dumped into the mud and dirt and left outdoors without regard to weather conditions or to the immense damage done by this barbarous way of handling such a staple. With the establishment of fireproof warehouses where the lowest rate of insurance can be obtained, where warehouse receipts will become even better collateral than the elevator receipts of the grain-elevator systems on the seaboard and in the Central West, the marketing of cotton and its financing will take on entirely new features. It will no longer be necessary to rush cotton to the market as formerly, for it will now become, whether owned by the farmer, the merchant or the manufacturer, the very best banking collateral. The saving in the cost of insurance and in "country damage" will add many millions of dollars to the value of the crop. To the extent that the South develops its warehousing facilities it will eliminate the necessity of handling the entire cotton crop in three or four months, as heretofore, and the marketing of cotton during twelve months instead of three will have a tendency to steady the price, to lessen the cost of rail and ocean transportation, and to enable the South to finance its cotton instead of depending upon other sections as in the past.

But not only will the establishment of warehouses prove of immense value to the entire cotton trade. These warehouses will be of equal value in the development of many other lines of business, since they will give to the South facilities for storing merchandise and carrying it at a low cost—facilities now enjoyed by the North and West, but only to a very limited extent by the South. Every development of this character adds to the financial power of this section and makes certain its more rapid growth in trade, in commerce and in wealth.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 70, 71 and 72.

BUILDING OF COAL LINES.

One of the most conspicuous manifestations of railroad construction in the South is the energy with which efforts are being made to further develop the coal of Virginia, West Virginia, Kentucky, Tennessee and Alabama. Particularly great, however, are the efforts in the regions adjacent to the country where the boundaries of the first four States named come close together. Intense activity is displayed by the contractors all along the line of the Deepwater and Tidewater railways,

and the South & Western Railway is about to begin some additional construction to complete its line from Elkhorn, Ky., to Rutherfordton, N. C., and possibly to Spartanburg, S. C. Not only are these two new companies hard at work upon their notable projects, but the Southern Railway, the Norfolk & Western, the Chesapeake & Ohio and the Virginia & Southwestern are all pushing out with tracks for the development of more coal territory and the future enlargement of the general fuel supply which is constantly growing in every locality.

Along the route of the Deepwater and Tidewater railways reports from various points say that the general contractors have altogether about 7000 men at work. There is also a large number of steam shovels, these machines being distributed at different places where they can be employed to advantage. There is much tunnel work in the mountains, but it is believed that all of it will be completed in season for the road to be turned over to the company in contract time, and it is expected, so the general manager is reported as saying, to be able to operate trains over the entire line from the Kanawha river to the Chesapeake bay by January, 1908. There are about 130 miles of line completed, and much of the other 315 miles is graded. About 65 miles of track have been laid from each end of the line, but this winter tracklaying is also to begin east and west from Roanoke. Altogether, it is said, there are about 9000 men employed for the construction of the road, and it is further stated that when the line opens there will be hundreds of thousands of tons of coal awaiting shipment and that it will immediately begin to handle a heavy traffic.

The South & Western Railway, on which construction is in progress in the southwestern part of Virginia and in Western North Carolina, will carry coal from the Elkhorn field in Kentucky, and also from the Clinchfield region in Virginia. At Elkhorn the line will connect with the Chesapeake & Ohio, and, like the Tidewater, it is assured of a large business in hauling fuel as soon as construction is completed. The sea-coast terminal, as heretofore stated, is to be at Southport, N. C., about 30 miles below Wilmington. The construction of this line through the mountains of North Carolina, where it was long believed to be almost impossible to build a railroad, is one of the impressive feats of engineering in these years of wonderful achievements. According to a report from that vicinity, some of this construction is costing \$180,000 per mile. The section between Marion and Rutherfordton is to be tackled within a month, and General Manager Caples is reported as saying that the work must be completed within a year or a year and a half. The difficulty of this task and the wonderful results which are being accomplished by the engineers are indicated by the expression of a mountain guide quoted in the Char-

lotte Observer thus: "A set o' people who are fools enough to undertake to build a railroad through a place like this oughtn't to be disturbed no way." From Elkhorn to Spartanburg the road will be about 300 miles long. There are 18 tunnels in the North Carolina mountains, one of them 2150 feet long, but the big tunnel under the Clinch mountain in Virginia is said to be two and one-half miles in length.

On the Norfolk & Western Railway the work of double-tracking is advancing as rapidly as possible, and it is said that it will not be long before the road from Roanoke to Lynchburg will be all fully two-tracked, but it is the announced intention of the company to double-track the whole line from Bluefield to the bay. The proposed issue of \$34,000,000 of convertible bonds is to be used from time to time for construction and other improvement work, which will include the building of a number of branches of coal mines. The Chesapeake & Ohio also has considerable double-track construction on hand, and it is likewise energetic in pushing extensions to coal territory near its lines.

The building which is being done by these various companies may be expected to greatly increase the tonnage of bituminous coal to market within the next two or three years, by which time there will doubtless have to be planned much other construction of a similar character in order that the railroads may keep pace with the demands for fuel.

NEGRO LOGIC AND THE OGDEN MOVEMENT.

Newspapers now giving much editorial space to denunciation of recent rabid negro manifestations against white civilization and to suggestions of the cure for the rapidly-growing evil should not forget that it is an extreme outcome of the revival during the past five or six years of public discussion of the "negro problem," and that the principal agent in that revival has been the Ogden Movement for "education" in the South. The calm student of the situation cannot escape the conviction that directly and indirectly related to the prevailing evil are such utterances as the following, made personally or fathered immediately, of course, without anything but the best intent, by men given prominence through participation in the Ogden Movement or as proteges of it:

The Southern people say the negro is unable to rise, but if he does, he must be put down. That is a natural feeling for ex-slaveholders to have.

The negro youth must be taught in his sympathies, his actions, to excel, if possible, even the white man.

We are here to say to the colored people of this nation, "Friend, go up higher." I trust that the South is rising out of Saxonism into humanity.

Not even a black skin and flat nose can justify caste in this country. . . . The only solution reserved for us is the adoption of these children of Africa into our American life. In spite of our race feeling, of which

the writer has his share, they will win equality at some time.

As the memories of the slave period fade away the mere fetish of colorphobia will cease to control our society, and marriage may come to be founded not on the color of the skin, but upon the common courtesies of life and upon genuine sympathy of heart and mind.

A large amount of good work is now being done by the best people, North and South, working in harmony for the political and intellectual advancement of the negro in the Southern States.

We must insist that the methods employed in Reconstruction times, however necessary they were for the preservation of Anglo-Saxon civilization, must not be continued at a time when the suffrage of the negro has been put upon an entirely different basis. We need to insist not only that the open door of hope shall not be shut in the face of any man, but that absolute justice shall be done the negro under the changed conditions that now prevail in the Southern States.

We hold these truths to be self-evident * * * that all men should have equality of opportunity.

Military force, or the fear of it, and nothing less, put the negro in the South for a time in full possession of the ballot. And nothing else can do it again under present conditions. * * * The restriction [of the suffrage] has been made so as to discriminate against the negro. The South can be punished politically by reducing its representation in Congress. But its conduct cannot be changed by punishment. The ailment is too deep-seated for mere political treatment.

The control of the South after the war was, as it had always been, in the hands of the very few. In order to keep it there the ignorance of the many, both white and black, was essential.

If the nation could not endure half slave and half free, how can it grow part white and part black?

To repeat names in this connection is unnecessary. It will suffice to state that seven of the eleven utterances were fathered by persons holding positions as educators in the South, where the mass of negroes are; that two were made by a Southern-born man, now one of the literary lights of Ogedenism; that one was made by a man who has for years been trustee of a negro institution in the South, and that one was made by a leading Ogedenite wrapped up for many years before 1900 in negro "education." Of course, these Ogedenites, victims of a fanaticism of more than half a century's standing, of the itch for notoriety, of a desire to escape from "lonely isolation," or of an enthusiasm in the cause of education unbalanced by adequate training and judgment, could not possibly have considered the possible effect of their exploitation of the negro, coupled with a disregard of the color line in social relaxations by some of their numbers, upon a great number of negroes who had not been imbued with Fabianism, the waiting and watching policy as to social equality, and were incapable of comprehending philosophic distinctions as to equality. That, however, does not mitigate the present grievous situation.

When in the cause of "education" negroes are told with emphasis that they have been and are oppressed by the whites, when they see some of their number welcomed as social equals by representatives of the Ogeden Movement, when they see such representatives patting on the back Southern whites who hold out the hope of equality, it is not surprising that, in the stirring up of the race problem, the logic of the barbarian shall attempt to realize upon such hopes or shall manifest resentment in the awful crimes which shock humanity.

MISSISSIPPI RIVER IMPROVEMENT.

In a recent interview with the Minneapolis *Journal*, Mr. A. L. Crocker, the Minneapolis member of the executive committee of the Upper Mississippi

River Improvement Association, referring to a statement of government engineers that it is possible to maintain a six-foot channel of water in the Mississippi river from Minneapolis to New Orleans without building new dams, said that such an improvement would mean much for Minneapolis, and especially for the flour exporters of that city. He calculates that with such a stage of water a single tug could draw five barges of 4000 tons burden each up the river into Minneapolis, and that if the tows of barges should come up loaded they certainly would not go back empty, for they would make such rates as to secure full cargoes on both trips. Mr. Crocker, who is an enthusiast for the improvement of the Mississippi river, recognizes in this possibility of freight navigation of the upper river a bringing of the great developing Northwest into a new relation to the Middle West and the Mississippi Valley as a whole, and he is anxious to see a united move by representatives of the Mississippi and the Ohio river States for liberal action by Congress to meet the rapidly growing needs of the great valley and to permit it to take full advantage of the opportunities to be given in the completion of the Panama canal. At Minneapolis in October there will be a meeting of the Upper Mississippi River Improvement Association, and such bodies as the Ohio Valley River Association and the Interstate Mississippi River Improvement and Levee Association should make the gathering an occasion for another advance upon the national government similar to that made at New Orleans in the fall of 1903.

Like opportunity will be had in a meeting of the Ohio Valley Improvement Association called for October 17 and 18 at Portsmouth, Ohio, and in the convention November 15 and 16 at St. Louis of the commercial bodies and river improvement organizations of the Mississippi Valley, called by the St. Louis Business Men's League. It is intended through this convention to bring to the notice of Congress the urgent necessity for large appropriations for the Mississippi river, and especially for the proposed deep-water canal from Chicago to the Gulf, the building of which will carry with it the improvement of the whole of the river. A letter from the league to the MANUFACTURERS' RECORD says:

Every commercial organization in the Mississippi Valley will be entitled to send one delegate to each 50 members, provided that each organization shall be entitled to at least 10 delegates and every town in the Mississippi Valley where there is no commercial organization will be entitled to 10 delegates.

Invitations to this convention will be sent also to the governors, the senators and the members of the House of Representatives from all the States of the Mississippi Valley. The date of the convention has been fixed as it is in order to secure the attendance of the congressmen as they are on their way to Washington after the fall elections.

Hon. William Lorimer, who has initiated the movement for the establishment of this deep-water canal, will preside over the convention. The Illinois and Missouri delegation in Congress have signified their ardent interest in this convention and will all attend it.

It is believed that through this convention a force can be aroused which will result in obtaining for the deep-water canal and for the Western waterways generally appropriations in adequate amount, provided that the organizations to whom invitations are sent will take an active interest in the meeting.

No movement of the kind in any part of the Valley can be without vital and practical interest to every other part, and, indeed, to the whole country. For the stretch of territory drained by the Mississippi and its tributaries, including the whole of 10 great States

and parts of 22 States and Territories, is destined to dominate the agricultural, manufacturing, transportation and commercial interests of the United States. It has an area of 2,107,550 square miles, or more than 70 per cent. of the total area of the United States, and within it dwell 69,000,000, or 82 per cent. of the total population of the country. Nearly all of our coal and iron are mined within it. It produces 98 per cent. of our corn, 94 per cent. of our tobacco, 90 per cent. of our cotton, 85 per cent. of our wheat and 84 per cent. of our hay and forage. Through it extends about 73 per cent. of our 212,000 miles of railroads, and of the \$15,000,000,000 worth of products of factories in this country in 1905 it produced between \$11,000,000,000 and \$12,000,000,000.

For a full realization of the potentialities of the Valley thus indicated a thorough, comprehensive system of improvement of the Mississippi river is essential. Dabbling in improvements may not be a total waste of money, but it approaches it. The economical and effective plan lies in a liberal appropriation by Congress looking to the speedy development for traffic of the great artery and its navigable branches.

A FIELD FOR COMMERCE.

The bigness of the United States in so many respects often fails to be reflected in the modes of thought of the people of the United States. Because we are so big and because we are making such rapid advance in every direction we sometimes neglect to look beyond our own borders for the purpose of comparing ourselves with others. A check to this narrow tendency is given in an article in the *New York Times* by Mr. John Barrett, formerly United States minister to Argentina, describing Buenos Ayres, the capital of that republic. He characterizes that South American metropolis as having the beauty of Washington, the wealth of New York and the bustle of Chicago. It has a population of nearly 1,100,000, greater than that of any city of the United States with the exception of New York, Chicago and Philadelphia, and it is growing faster than any city here except New York and Chicago. Its parks and boulevards are more beautiful than those of Washington. Its opera-houses, clubs and newspaper buildings are finer than any in New York, and its street-car systems and hotels are better than those of Chicago. One newspaper office represents an investment of \$3,000,000. The government has nearly completed an opera-house costing \$10,000,000, and a jockey club, the principal social organization for men, cost \$2,000,000. The city is abundantly lighted by electricity, and its water supply and sewerage systems are constructed upon the most improved and elaborate lines, while it is soon to have an underground railway system. Situated about 4500 miles south of New York and 1000 miles east of it on the River Plate, about 200 miles from the sea, and commanding by the river system an immense territory for inland trade, it is the center of a foreign commerce which in 1905 represented \$527,998,268 in gold. That was but \$110,536,620 less than the foreign commerce of the 30 ports of the South in the fiscal year 1905.

What that commerce is to be when the population of Argentina has approached that of this country may be understood from some figures presented in a recent issue of the MANUFACTURERS' RECORD by Mr. Frank A. Wardlaw,

writing from intimate knowledge of the republic. Argentina has an area of 1,158,400 square miles. In that area there are less than 7,000,000 inhabitants, the population having increased between 1900 and 1905 from 4,512,342 to 6,101,000. Eighteen railway companies and three government lines centering in Buenos Ayres have an aggregate mileage of 12,547, which in 1905 handled 19,727,006 tons of freight and 23,120,095 passengers. Buenos Ayres itself, with a population on the 1st of January of this year of 1,034,781, has eight street railway companies with 300.8 mileage, of which 213.5 are electric lines.

The country which in five years increases its population by nearly 1,500,000 and its foreign trade by \$250,892,480, or by more than 90 per cent., a country which as a producer of food-stuffs for European consumption helps to fix the prices for the world, is hardly a country to be dismissed from what is called the Anglo-Saxon mind. It is rather a country worthy of most serious study by the manufacturing and mercantile classes of the United States in the possibility that, properly cultivated, it may become one of the most valuable commercial fields of the United States.

THE EDUCATIONAL SCANDAL.

No man who honestly studies the situation can be otherwise than profoundly concerned over the conditions which are developing throughout this country in the changing character of the rising generation. However optimistic one may be, it is scarcely possible to find a business man who does not realize that within the last 10 or 15 years there has been a great change in the character of the boys of all sections. It is almost impossible to secure boys who can in any way compare in readiness to work, in ability and in concentration of effort with the boys of 15 or 20 years ago. Here and there are to be found exceptions, and these exceptions are as refreshing to the business man as is the oasis in the desert to the traveler. The country seems to have gone somewhat mad on many subjects, but on none to a greater extent than on education, which, as it is carried on today, is largely a matter of miseducation. Boys are being trained away from a sense of responsibility, from concentration of effort, from a willingness to follow the only path which can possibly lead to mental, moral and financial success. We are developing throughout the country a disposition on the part of boys which drives them to a desire to get money or get other things without the willingness to give work in exchange. They seem to have been so taught, either at home or in the schools, that they desire to get something for nothing, not realizing, or at least unwilling to put in practice, that labor, honest toil of brain or brawn, is not only the only sure road to success, but is the only honest road. But honesty in the good old sense is, in the case of hundreds of boys, losing its force through dishonest methods at school or through following the examples and teachings of others, leading to dishonest lives, wherein they fail to recognize what real honesty is.

We are talking very much about the race question as an unsolved problem, and about many other things on which public interest is from time to time centered, but the greatest problem which America faces is how to meet and change the conditions which prevail to such an alarming extent among

the boys of today. And yet what else can be expected when the fountain-head is corrupt and tainted with the poison of death to honor, manliness and honesty? How can we expect anything else than that this poison of death shall be felt wherever the boy drinks of the poisoned stream? Consider for a moment the remarkable statement, which everybody recognizes to be true, as made by one of the leading religious papers of Boston, *The Watchman*, which, under the head of "Disgraceful Competition," gives a bitter arraignment of the methods of educational institutions. On this subject *The Watchman* says:

The manner in which various educational institutions are bidding against one another for students is becoming a public scandal. Every one of these institutions is calling upon the public for contributions. They claim that they have not sufficient funds to do their work properly and to supply the modern demands of education. But they have money to offer young men to get them away from other schools. There is a certain advertising and presentation of the advantages and special facilities of a school which is legitimate and proper, but when the effort to obtain students descends to a commercial competition, and students are bid for as if they were slaves on the auction block, the rivalry becomes a disgrace to high standards of scholarship, brings demoralization to the students and amounts to a misuse of funds given for worthy educational use.

The purchase of students for special service on baseball or football teams has been notorious for some time, but it may not be as generally known that systematic efforts are made to get students away from other colleges by offers of larger sums of money than can be paid elsewhere. In some institutions well-nigh the full expenses of the college course are paid to draw students away from colleges to which they had been intending to go and to which their personal preferences and local surroundings would naturally draw them. Some colleges have a system of paid agents scattered over the country whose business it is to watch the most promising students in preparatory schools and to spare neither effort nor money to induce them to attend the institutions they represent.

So far has this dishonorable competition gone that a large number of literary institutions have a salaried officer whose principal business is to secure students for his school, not merely by legitimate presentation of its educational advantages, but by secret offers of support, which are increased in proportion to the difficulty of securing the students. Some colleges pay to principals of preparatory schools a bounty for every student safely delivered within their walls, and even business agencies have been established which, for a consideration, agree to secure students for institutions retaining their services, their commission to be paid out of the first term bills paid by the students so obtained.

Even theological seminaries are not exempt from this corrupting competition. We have learned of one wealthy theological seminary which has an arrangement with a nearby university by which post-graduate students for degrees in the university reside in the seminary, take a few courses, are counted among its students and are supported on its funds, although it is clearly understood that these students do not intend to enter the Christian ministry nor engage in religious service. Theological seminaries also bid against each other for students, one bidding more than has been offered a student by another seminary in order to draw him away. As high as \$350 a year has been paid in some cases to students preparing for the ministry of the gospel simply to get them away from a seminary to which they had intended to go.

The unworthiness of such tactics on the part of educational institutions, and especially religious schools, is evident to any person of keen moral sense. It is a misuse of funds entrusted to the management of these schools for high and purely educational purposes. It degrades the ideal of education to the level of corrupt commercial methods. But especially is anything of this sort objectionable because of the degrading influence on the young men themselves. No one can submit to such a bargain and sale without a loss of self-respect and a lowering of moral and scholarly ideals. And no educational institution should permit itself to put such a temptation to a sacrifice of high ideals in any young man's way.

The "public scandal" to which *The*

Watchman refers seems to have permeated almost the entire educational work of the country. Everywhere schools which ought to be the very synonyms of manhood and honor and character building are sinking all of these essential qualities in the matter of "public scandal" to beg money, and beg it on any conditions. The "public scandal," "the disgraceful competition," the "purchasing of students," which *The Watchman* so bitterly denounces is but the natural and inevitable outcome of the disgraceful competition for money; the purchase of endowments without regard to the price paid in honor. The people of this country may well pause and give consideration to the causes which are producing this condition among educational institutions, the inevitable outcome of which is seen in the boys of today, and which, unless changed, means the ruin of American manhood.

MUSKOGEE ON THE MOVE.

In furtherance of a movement for a continuation of the work by the government on the improvement of navigation of the Arkansas river, making Muskogee, I. T., practically the head of navigation of the river, the Commercial Club of that city is circulating a pamphlet compiled by Mr. Theodore W. Gulick, its secretary, giving a mass of information from government sources showing that the river has been regarded for 70 years as a navigable stream as far up as the mouth of Grand river at a point between Muskogee and Fort Gibson, and urging every one of the 25,000 inhabitants of Muskogee to write directly or indirectly to every senator and representative interested in the improvement of the Mississippi river and its tributaries, to the end that they may give special attention to the claims of the Arkansas river. Accompanying the pamphlet is a map showing the country within 60 miles radius of Muskogee and bearing the statement that in 1905 1,000,000 bales of cotton and 1,251,357 hogs were raised within 12 hours' freight distance of Muskogee, and that the navigation of the Arkansas river insures the lowest freight rates. Across the map is a line indicating the site of the Grand river dam of 10,000 horse-power at Fort Gibson, a few miles from Muskogee, with the offer of power free for five years to the first cotton factory to be established there.

STANDARD OIL METHODS.

The New York *Evening Post* having recently undertaken to make a comparison between the Hearst political combination and the Standard Oil Co. as a business enterprise, a correspondent of that paper disputes the correctness of the *Post's* position and in the course of his letter gives some facts regarding the vast development of the business of the Standard Oil Co. well worthy of consideration.

The enormous wealth created out of the development of the oil business is not so remarkable as the still greater wealth created out of the iron and steel industry. The iron ores of the Mesaba region, for instance, which were only discovered in large quantity about 14 or 15 years ago, and which at that time were practically without value to anyone, have since then created hundreds of millions of wealth. The coal properties of West Virginia, some of which five or six years ago were selling at a few dollars an acre, and which are now worth from \$25 to \$100 an acre; the timber lands of the South, which 10 or 12 years ago sold at from \$1 to \$2 and \$3 an acre, and which now command from \$25 to \$50 an acre, according to the character of the timber and the location of the property, all illustrate the marvelous possibilities of wealth creation through in-

vestments in such material resources, whose enhancement in value has made so many vast fortunes throughout the country. What has been seen in the Mesaba region, what was accomplished by the Carnegie Company, which one year sold for over \$500,000,000 a property which 12 months before it had tried in vain to sell at \$100,000,000, illustrate the possibilities in the development of such a country as this before men of great business genius, who see an opportunity in advance of others and utilize it. The correspondent of the *Post*, referring to the suggestion of that paper, said:

"Look at the undisputed facts and ask yourself how you can compare with the Hearst crowd a clear-headed, skilful, progressive body of business men who some 35 years ago by business methods rescued the producing and manufacturing petroleum industry from the incompetence, recklessness and stock-jobbing of the original 'Coal Oil crowd' and placed the business on a sound footing. Men, besides, who have ever since conducted their share of it (a large share, but never by any means or at any time a monopoly), so that the Standard Oil's standing in the business community is the highest known. While its profits seem and are large, they are no greater, surely, than would accrue to any growing business enterprise as ably carried on for the same length of time in this enormously expanding country of ours. I could dwell in greater detail on the justification of Standard Oil, but my present object is to insist that your comparison is neither apt nor just. It was not 'the capitalization of a myth,' as you say of the Hearst movement, that John D. Rockefeller and his associates undertook in 1872, but the capitalization of oil and oil refining, which were very substantial things. It was no mere question of business ambition or able dealing with trade and traffic conditions which gave so much reward to them, but the successive discovery and development of new oil fields by others, and for whose products they were quicker than their competitors to provide a channel and furnish a market. And this is the history in all the developments of the oil fields from one little corner of Pennsylvania to the present condition with gushing oil pools in New York, Ohio, West Virginia, Indiana, Illinois, Indian Territory, Texas and California. Subtract from this great commercially honorable epic the pitiful little legends of the squalid times of Oil City and its picturesque little army of adventurers—the mainstay of the lady-historian's narrative—and the facts remain of a great industry scientifically managed, which has created and distributed millions and millions of money among the workers and traders of the United States, and brings, in the teeth of the fiercest English, Russian and Austrian competition, \$90,000,000 yearly of foreign money to our shores in exchange for American oil and oil products.

"It is the fashion to accept the literary myth about Standard Oil. President Roosevelt has given it what backing he can while directing investigation of the railroad-rate question, of which Standard Oil's part is only a fraction. As a result the Standard Oil Co. is variously in the courts charged with accepting, or, as implied, forcing lower rates from railroads contrary to law. But those who note these things editorially and give no benefit of doubt or of possible unintentional error or any mitigating circumstances whatever, and accept an indictment or two, obtained under the heaviest administration pressure, as a conviction, might well consider the possibility—it has happened often enough before with Standard Oil—of the absolute legal innocence of the accused being duly established. Wherefore the humorists and philosophers of the news-

papers (and your true humorist is an inverted philosopher) should, when they are not appealing to the revolutionary class, consider the advisability of not comparing everything piratical and reprehensible with Standard Oil."

SOUTHERN FARM MAGAZINE.

Various phases of the immigration question, economic problems in agriculture, the many crops suitable for the South, divers manifestations in the educational movement and other social questions are discussed in the September issue of the *Southern Farm Magazine*. In it the practical farmer, the housewife, the educator, the worker for Southern development on many lines and the general reader will find much of interest, as its contents are by no means confined to specifically farm matters, but are the result of an endeavor to contribute to the welfare, the advancement and the entertainment of the South generally.

The *Southern Farm Magazine* is published monthly by the Manufacturers' Record Publishing Co., Baltimore, Md. Price \$1 a year.

IRON MERGER EXPECTED.

Representatives of Ohio and West Virginia Companies Negotiating.

Reports come from Wheeling, W. Va., of a probable consolidation of the La Belle Iron Works of Steubenville, Ohio, and the Wheeling Steel & Iron Co. At a meeting of the directors of the latter company held at Wheeling last week a committee was appointed to meet a similar committee from the La Belle Iron Works to conduct negotiations for the consolidation. A meeting of the La Belle directors will be held early in September. It is the opinion of well-informed iron and steel men in Wheeling that this deal will be successfully consummated. This opinion is based on the fact that the two plants have apparently become so necessary to each other that a merger is the only logical outcome. The deal will be one of the most important that has occurred in the iron and steel trade in the upper Ohio valley in many years.

It will be remembered that about a year ago E. N. Ohl of New Castle, Pa., obtained an option on the La Belle works for \$200 per share, or \$14,000,000 for the plant. At the time it was declared a merger of independent companies was in contemplation, and it was generally believed that the option would be exercised, but the enterprise failed to materialize, and the option was allowed to expire.

The La Belle Iron Works has large plants at Steubenville and Wheeling, and controls the La Belle Coke Co. of Uniontown and the Pitt Iron Mining Co. of Virginia, Minn. It has an authorized capital of \$7,500,000, of which \$7,000,000 has been issued and on this it has paid from 8 to 10 per cent. in dividends. The earnings of the company for the year ending June, 1905, were \$1,186,417, its surplus for the year having been \$829,837. The company also has a bond issue of \$2,500,000 of 6 per cent. bonds. Isaac M. Scott of Steubenville is president, and E. W. Mudge, vice-president.

The Wheeling Steel & Iron Co. has plants at Wheeling, Benwood and Martins Ferry. It has \$5,000,000 capital, on which it pays 10 per cent. dividends. In addition there are outstanding about \$100,000 of 5 per cent. bonds. C. R. Hubbard is president and general manager, and W. F. Stifel is vice-president.

While no details regarding the proposed consolidation have been given out, it is mentioned as probable that the capital of the combined companies will be about \$15,000,000.

President Hubbard of the Wheeling Steel & Iron Co., in reply to a query from

the MANUFACTURERS' RECORD, writes that he is not prepared to give any information.

SOUTHERN STEEL CO. MERGER.

Reported to Take Over Lacey-Buck Iron Co. and Chattanooga Iron & Coal Co.

According to announcements made at Birmingham during the week, the Southern Steel Co. of Gadsden, Ala., has arranged the details for absorbing the properties of the Lacey-Buck Iron Co. and the Chattanooga Iron & Coal Co. The Southern Steel Co. was recently referred to by the MANUFACTURERS' RECORD as having called a meeting of stockholders for September 1 to consider increasing capital stock from \$16,000,000 to \$21,000,000 and probably providing for additional capitalization to the amount of \$4,000,000 for development work. It has been understood that the company's management will complete at this meeting arrangements for taking over the two companies named, but no authoritative statement has been made. It is stated that E. T. Schuler, now president of the Southern Steel Co., will be president of the new corporation, and that E. C. Buck, president of the Lacey-Buck Iron Co., will be vice-president, while George H. Schuler, who has been active in the management of the Southern Steel Co., will continue his duties.

A full confirmation and complete statement of the new company's plans may be made public at the close of the meeting on September 1, together with details of any proposed extensions and betterments that may be decided on.

The properties of the Southern Steel Co. include steel mill with six open-hearth furnaces at Gadsden, blast furnace of 250 tons capacity at Gadsden, nail and wire mill at Ensley, coal mines at Virginia, 300 coke ovens at Virginia, coal mines at Altoona, ore mines at Porterville, on the Alabama Great Southern Railroad; ore mines at Dircellar, on the same line, etc.

The Lacey-Buck properties include blast furnace of 250 tons capacity at Trussville, 300 coke ovens at Trussville, coal mines at Graves, near Birmingham; new coal mines being opened near Palos, red-ore mines at Crudup, brown-ore mines at Oremount, on the Southern Railway; Spencer quarry near Boyles, etc.

The Chattanooga properties include blast furnace of 200 tons capacity at Chattanooga, coal mines at Dunlap, Tenn., on the Nashville, Chattanooga & St. Louis Railroad; 50 coke ovens at Dunlap, Estelle red-ore mines on the Chattanooga Southern, brown-ore mines at Cedartown, Ga., etc.

For an Interurban Line.

[Special Cor. Manufacturers' Record.]
Cleburne, Texas, August 22.

Cleburne is the seat of Johnson county in a very rich, productive portion of North Texas. Cleburne now has six railway outlets. It is the terminus of the Dallas, Cleburne & Southwestern and the Trinity & Brazos Valley railroads, and also has the general shops of the G., C. & S. F. Railway, employing about 800 men, with a payroll something like \$100,000 a month. It has a growing population of about 14,000, and plenty of good water and timber for manufacturing purposes. As yet we have no street railway. We are in the market for an enterprise of this kind, and are sure the city would take at least half of the stock to put in an up-to-date system, or would donate handsomely to any responsible corporation that would finance the enterprise.

We are within 24 miles of Glen Rose, the seat of Sumner county, a flourishing little city that has no railroad, but wants a line badly, and now has \$15,000 in bank which they offer, together with right of way to their county line, to any com-

pany that will build a line in to them. Glen Rose is a great summer resort from the fact that they now have 180 flowing wells of fine water and is a very healthy, high, picturesque place. The town is located on the bank of the Paluxie river, that would afford sufficient water-power to run an interurban line between Cleburne and Glen Rose. It is believed that an in-

terurban line from Cleburne, in connection with a street railway in Cleburne, would be one of the best-paying propositions that could be found anywhere.

Mr. M. D. Miller, a very progressive citizen of this place, is enthused in seeing the street line and the interurban line built, and will be glad to co-operate with a move in this direction. C. C. BYERS.

A Vast Warehouse Undertaking at Memphis

[Written for the Manufacturers' Record.]

The most extensive cotton-warehousing enterprise ever undertaken in the South is a vast system of warehouses now under construction at Memphis, Tenn. With a view to relieving the cotton industry of that city of unnecessary expenses the Memphis Warehouse Co. some time ago purchased 125 acres of land in the southern part of the city, and now has under way the erection of 160 one-story warehouses designed to minimize the hauling to and fro of cotton between cars, warehouses and compresses, to permit the employment of labor-saving devices on a large scale, and to present the most favorable insur-

The plant can be reached by all the railroads entering Memphis, and incoming carloads of cotton are placed directly at the unloading platforms, requiring no "spotting" of cars. Cotton is unloaded from the cars to the platforms 30 feet wide, in the center of which is the overhead trolley system. It is transported by means of the trolleys to the warehouses. When it goes forward from storage it is taken again by trolley to the compresses, and after being compressed is taken by trolley to the outbound platforms.

The plant, as shown in the drawing above, consists of 160 one-story ware-

outbound platform for placing an equal number of empty cars for outbound loading. This capacity is sufficient for an ordinary day's business, and only on the very heaviest days will more than one setting of cars, either loaded or empty, be necessary.

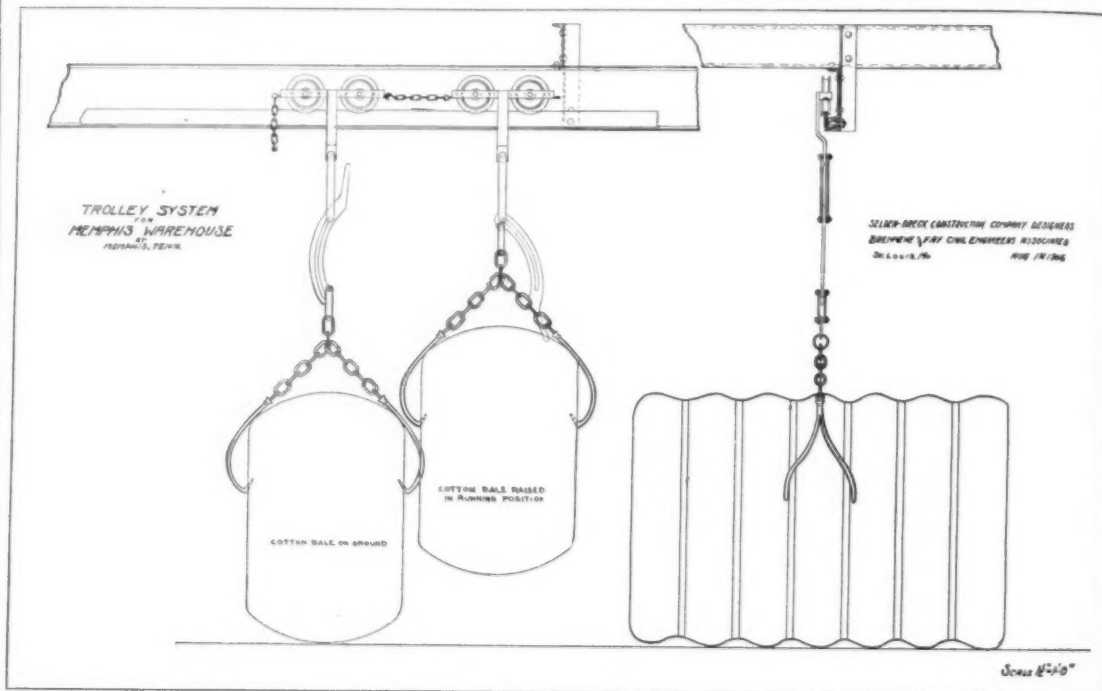
The platforms have concrete retaining walls, and are surfaced with four inches of gravel, with a top-dressing of two inches of cement gravel or of chert. Streets are finished in the same way.

The trolley system is illustrated by cut No. 2.

The trolley track, a 3x¼-inch bar of open-hearth steel, is carried on the flange of a 12-inch 20½-pound channel, to which it is held by ¾-inch countersunk bolts and cast-iron fillers, spaced 2 feet center to center.

The channel is suspended from steel bents, spaced 20 feet center to center, to which it is riveted by means of an angle connection, as shown in the drawing.

The trolleys can be seen in the drawing, and need little description. They have roller bearings, and a stopper running just below the bottom of the track support to prevent jumping the track. They can be lifted from the track at any point and re-



CUT No. 2.

ance risk that can be devised. This undertaking is but another evidence of the importance of the development throughout the South of warehouses for cotton handling and cotton storage, which the MANUFACTURERS' RECORD has for many years been vigorously advocating. There was a time when the South was not able financially to build such warehouses, but with the vast increase in wealth during the last few years the South is abundantly able to provide at every important cotton point such fireproof storage warehouses as to secure the lowest possible insurance rate and give to cotton in warehouses the benefit of a warehouse receipt which will be gilt-edge collateral. The great system of warehouses now under construction at Memphis was designed by the Selden-Breck Construction Co. of St. Louis.

Cut No. 1, appearing on the opposite page, is an isometric drawing showing a part of the complete ground plan and layout.

The cotton is handled throughout the plant by means of overhead trolleys impelled by gravity. A continuous down-grade is maintained from the outer end of the unloading or inbound platforms, past the warehouses and the compresses to the outer end of the loading or outbound platforms.

houses, inside dimensions 72 feet 8 inches by 86 feet 10 inches, with earthen floors and monolithic concrete walls, the end walls being 13 inches thick and the partition walls 17 inches thick, extending three feet above the roof. Each warehouse has 10 eight-foot fire doors, five in each end. The roof is of two-inch M. & B. plank, covered with composition. The entire system of warehouses is supplied with a standard automatic sprinkler system, fed by a 12-inch city main.

The houses are arranged in 16 blocks of 10 warehouses each, separated by streets alternately 80 feet wide and 100 feet wide, and divided transversely by a street 80 feet wide.

There are three compresses located lower down on the trolley system, so that cotton from the warehouses will be impelled past the compresses by gravity. Below the compresses again are located the outbound platforms, so that the cotton will continue to be moved by gravity.

There is room sufficient to handle from 10,000 to 15,000 bales of cotton on the receiving platform and from 3000 to 7000 bales on the outbound loading platform.

There is room sufficient to handle from for the placing of 175 loaded cars of inbound cotton at one setting, and at the

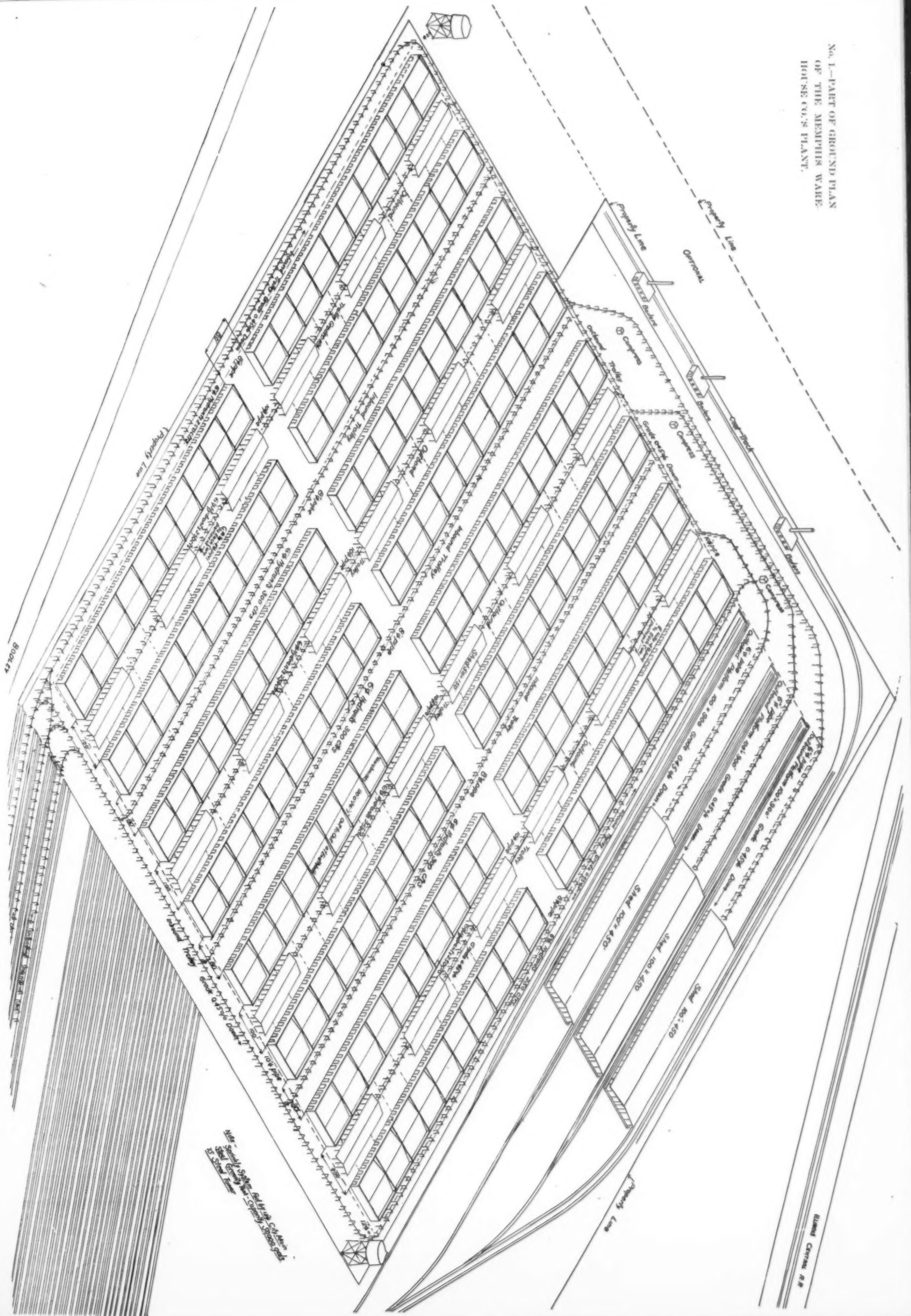
turned to the starting-point by a light return track attached to the outside of the bents, so as not to interfere with the loaded movement.

The cotton bale is attached by means of the standard cotton hook, such as is in universal use in the handling of cotton.

In order to raise the cotton from the ground to allow it to travel on the trolley, a link is used, which can be seen in the drawing. A six-foot lever of gas pipe with a rope on the outer end is slipped over the free end of the link in order to give the necessary leverage to raise the bale. Trial has demonstrated that this device is well adapted to the purpose, as a bale of cotton can be swung in the air in less than 20 seconds. By means of two fingers pulling upward on the free end of the link the bale can be instantly tripped, and it drops to the ground, freeing itself from the hooks. The illustration shows both positions of the bale, that is, at rest on the ground and elevated ready for movement.

This plant is now under construction for the Memphis Warehouse Co. by the Selden-Breck Construction Co., Mr. Breck of that company having designed the plant, and the construction is far enough advanced to make a portion of the plant available for this season's cotton crop.

No. 1.—PART OF GROUND PLAN
OF THE MEMPHIS WARE
HOUSE CO.'S PLANT.



AMERICAN PUBLIC WORKS.

Association's Annual Meeting to Be Held at Atlanta.

The second annual convention of the American Public Works Association will be held at Atlanta, Ga., September 14 and 15. The papers to be presented will include "Surety Bonds," by Fair Dodd, Aetna Indemnity Co., Atlanta, Ga.; "Engineering Fees," by Chas. C. Wilson, C.E., Columbia, S. C.; "Contracts As a Whole," by R. C. Huston, city engineer, Hattiesburg, Miss.; "Standardization of Hydrant Nozzles," by W. H. Hume, Herron Pump & Foundry Co., Chattanooga, Tenn.; "Reduction of Fire Insurance Premiums," by W. F. Wilcox, C.E., Meridian, Miss.; "Legal Pitfalls," by William B. King, Washington, D. C.; "Leadite," by George McKay, Philadelphia, and "Cost-Plus-Fixed-Sum Contracts," by Frank B. Gilbreth, New York.

The officers of the association are J. A. Omberg, Jr., C.E., president; R. C. Huston, C.E., vice-president; W. H. Flint, secretary; H. J. Maloche, treasurer, and Edward J. O'Beirne, W. F. Wilcox, C.E., Matthew F. Cole, Ben Willard, A. J. Bowron, L. D. Lewman and C. M. Ladd, executive committee. The members are:

D. K. Abbott, manufacturers' agent, Springfield, Ohio.
 Abee & Edwards, general contractors, Hickory, N. C.
 Adams & Bagnall Company, manufacturers, Atlanta, Ga.
 Ahrens & Ott Manufacturing Co., manufacturers, New Orleans, La.
 Allis-Chalmers Company, manufacturers, Atlanta, Ga.
 Allison & Co., general contractors, Birmingham, Ala.
 American Cast Iron Pipe Co., manufacturers, Birmingham, Ala.
 American Light & Water Co., Kansas City, Mo.
 Atlas Engine Works, manufacturers, Atlanta, Ga.
 W. E. Austin Company, manufacturers, Atlanta, Ga.
 Ball Engine Co., manufacturers, Atlanta, Ga.
 H. C. Baker, manufacturers' agent, San Francisco, Cal.
 J. H. Barnes & Co., general contractors, Greenville, Miss.
 J. H. Barnett, manufacturers' agent, Jackson, Miss.
 F. H. Beeman, general contractor, Louisville, Ky.
 Black & Laird, general contractors, Dallas, Texas.
 Black Hawk Electric Co., Davenport, Iowa.
 Blackmer Post Pipe Co., manufacturers, St. Louis, Mo.
 W. F. Bowe, general contractor, Augusta, Ga.
 Bourbon Copper & Brass Co., Cincinnati, Ohio.
 T. C. Bradford, civil engineer, Hattiesburg, Miss.
 R. W. Brahan, manufacturers' agent, Huntsville, Texas.
 Braid Electric Co., supplies, Nashville, Tenn.
 Brooks & Son, general contractors, Jackson, Mich.
 W. O. Burton, general contractor, New Orleans, La.
 F. A. Butler, consulting engineer, Nashville, Tenn.
 P. Byrne, consulting engineer, Birmingham, Ala.
 T. J. Byrne, general contractor, St. Louis, Mo.
 J. J. Cain, general contractor, Columbia, S. C.
 John Carsey, manufacturers' agent, Greenville, Texas.
 C. H. Campbell, manufacturers' agent, Atlanta, Ga.

W. A. Castoe, general contractor, Bell-air, Ohio.
 Casey & Hedges Manufacturing Co., Chattanooga, Tenn.
 Central Foundry Co., manufacturers, New York.
 Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
 Chicago Bridge & Iron Co., manufacturers, Chicago, Ill.
 R. D. Cole Manufacturing Co., manufacturers, Newnan, Ga.
 W. W. Cook & Son, Junction City, Kan.
 W. R. Conard, consulting engineer, Burlington, N. J.
 H. H. Corson, General Electric Co., Nashville, Tenn.
 W. W. Corey, Rensselaer Manufacturing Co., St. Louis, Mo.
 Columbia Incandescent Lamp Co., Memphis, Tenn.
 Crocker-Wheeler Electric Co., Atlanta, Ga.
 A. P. Crocker, Gamewell F. A. Co., Atlanta, Ga.
 Christopher & Simpson, supplies, St. Louis, Mo.
 M. Wilson Davis, consulting engineer, Harrisonburg, Va.
 Mark Dean, publisher, New York city.
 Moise De Leon, general contractor, Atlanta, Ga.
 W. S. Dickey, Clay Manufacturing Co., Kansas City, Mo.
 The Dimmick Pipe Co., Birmingham, Ala.
 Fair Dodd, Aetna Indemnity Co., Atlanta, Ga.
 Electric Appliance Co., Memphis, Tenn.
 Electric Supply Co., supplies, Memphis, Tenn.
 Electric Supply Co., supplies, Savannah, Ga.
 Ewing-Merkle Electric Co., St. Louis, Mo.
 W. D. Edwards, mechanical engineer, Memphis, Tenn.
 S. A. Ege, mechanical engineer, Laurel, Miss.
 Erie City Iron Works, manufacturers, New Orleans, La.
 The Fairbanks Company, New Orleans, La.
 S. E. Flint, mechanical engineer, St. Louis, Mo.
 W. B. Ford, manufacturers' agent, Birmingham, Ala.
 Fort Wayne Electric Works, manufacturers, Atlanta, Ga.
 J. A. Gaboury & Son, Jacksonville, Ala.
 R. E. Gannon, general contractor, Cairo, Ill.
 Gardner Governor Co., manufacturers, Quincy, Ill.
 General Electric Co., manufacturers, Atlanta, Ga.
 General Incandescent Arc Light Co., Philadelphia, Pa.
 W. O. Glass, general contractor, Yazoo City, Miss.
 Glenny & Castanedo, consulting engineer, New Orleans, La.
 Glamorgan Pipe & Foundry Co., Lynchburg, Va.
 J. P. Greenwood, M.E., New Orleans, La.
 J. C. Guild, consulting engineer, Chattanooga, Tenn.
 Frank B. Gilbreth, general contractor, New York.
 Hardie-Tynes Manufacturing Co., Birmingham, Ala.
 Hamilton Corliss Engine Co., Atlanta, Ga.
 W. R. Harris, Abadie & Co., St. Louis, Mo.
 Harrisburg Foundry and Machine Works, Harrisburg, Pa.
 Harrison Safety Boiler Works, Philadelphia, Pa.
 W. H. Harrison, manufacturers' agent, Atlanta, Ga.

P. O. Hebert, Eureka Hose Co., Atlanta, Ga.
 J. E. Hollingsworth, general contractor, Ensley, Ala.
 Hoover, Owens & Rentschler, Hamilton, Ohio.
 Richard C. Huston, city engineer, Hattiesburg, Miss.
 H. B. Hill, manufacturers' agent, Paragould, Ark.
 Intersate Electric Co., New Orleans, La.
 Granbery Jackson, consulting engineer, Nashville, Tenn.
 G. Jaeger, general contractor, Rich Hill, Mo.
 W. R. Jemison, manufacturers' agent, Atlanta, Ga.
 A. W. Jones, manufacturers' agent, Atlanta, Ga.
 M. H. Kelly, general contractor, Asheville, N. C.
 M. P. Kelly, general contractor, Gainesville, Texas.
 X. A. Kramer, consulting engineer, Magnolia, Miss.
 Geo. A. & Wm. B. King, Washington, D. C.
 Keasby & Mattison Company, manufacturers, Atlanta, Ga.
 W. M. Leftwich & Co., Nashville, Tenn.
 M. T. Lewman & Co., general contractors, Louisville, Ky.
 Martin Lide, manufacturers' agent, Birmingham, Ala.
 A. M. Locket & Co., engineers, New Orleans, La.
 W. D. Lovell, consulting engineer, Des Moines, Iowa.
 Lynchburg Foundry & Machine Co., Lynchburg, Va.
 Lyon & Harvey, consulting engineers, Memphis, Tenn.
 M. T. McCormick, consulting engineer, Charlotte, N. C.
 J. B. McCrary, consulting engineer, Atlanta, Ga.
 L. W. McDaniel & Co., McComb City, Miss.
 John H. McGowan Company, manufacturers, Cincinnati, Ohio.
 W. H. McGee, general contractor, Jackson, Miss.
 John H. McKenzie Sons, Augusta, Ga.
 McQuatters Plumbing & Machine Co., Hillsboro, Texas.
 D. B. McFadden, manufacturers' agent, Atlanta, Ga.
 J. W. Mann, general contractor, Vicksburg, Miss.
 Michigan Brass and Iron Works, Detroit, Mich.
 J. E. Minter, consulting engineer, Macon, Ga.
 Montague & Co., manufacturers, Chattanooga, Tenn.
 H. M. Money, mechanical engineer, Mt. Olive, Miss.
 H. W. Morgan, consulting engineer, Hawkinsville, Ga.
 H. Clay Moore, manufacturers' agent, Atlanta, Ga.
 Ernest Mueller, general contractor, Enid, I. T.
 H. H. Meadows, the B. & W. Co., Atlanta, Ga.
 Howard Neely, general contractor, Chattanooga, Tenn.
 F. W. Nichol, consulting engineer, Mobile, Ala.
 Edward J. O'Beirne, consulting engineer, Atlanta, Ga.
 J. A. Omberg, Jr., city engineer, Memphis, Tenn.
 Orleans Engineering Co., New Orleans, La.
 A. L. Patterson, general contractor, Macon, Ga.
 Arthur Pew, consulting engineer, Atlanta, Ga.
 Piedmont Electric Co., Anderson, S. C.
 P. H. Porter, consulting engineer, Clinton, Ky.

The Platt Iron Works Co., Atlanta, Ga.
 W. C. Porter, consulting engineer, Laurel, Miss.
 W. M. Rapp, consulting engineer, Atlanta, Ga.
 E. G. Richardson, manufacturers' agent, Atlanta, Ga.
 R. E. Rabb, mechanical engineer, Beaumont, Texas.
 C. D. Rogers, general contractor, Gloucester, Miss.
 J. M. Roman & Co., consulting engineers, Atlanta, Ga.
 John A. Roebing's Sons Company, manufacturers, Atlanta, Ga.
 J. T. Rose, general contractor, Atlanta, Ga.
 A. B. Sanders, consulting engineer, Vicksburg, Miss.
 Sciple Sons, manufacturers' agents, Atlanta, Ga.
 Earl F. Scott, mechanical engineer, Jackson, Miss.
 Dan Shea Boiler Co., manufacturers, Memphis, Tenn.
 G. E. Smith, general contractor, Osceola, Iowa.
 N. S. Sherman Machinery Co., Oklahoma, O. T.
 James Sloan, manufacturers' agent, Chattanooga, Tenn.
 Southern Sewer Pipe Co., Birmingham, Ala.
 Southern Electric Co., Nashville, Tenn.
 Southern States Portland Cement Co., New Orleans, La.
 Spranley & Reid, supplies, New Orleans, La.
 T. J. Spriggs, general contractor, Minneapolis, Minn.
 Jas. O. Spear, Carter-Gillespie Electric Co., Atlanta, Ga.
 Roy W. Stookey, general contractor, Belleville, Ill.
 Stanley-G. I. Electric Manufacturing Co., Atlanta, Ga.
 Sullivan & Long, general contractor, Bessemer, Ala.
 Subers Company, manufacturers' agents, Macon, Ga.
 Edward T. Sykes, general contractor, Pine Bluff, Ark.
 Geo. O. Tenny, consulting engineer, Spartanburg, S. C.
 The Philip Carey Manufacturing Co., manufacturers, Atlanta, Ga.
 E. H. Thompson, manufacturers' agent, Macon, Ga.
 W. H. Treadwell & Co., manufacturers, Philadelphia, Pa.
 J. M. Umstadter, consulting agent, Norfolk, Va.
 U. S. C. I. Pipe & Foundry Co., Chattanooga, Tenn.
 M. C. Vandiver, general contractor, Atlanta, Ga.
 J. F. Vickery, manufacturers' agent, Atlanta, Ga.
 Virginia Bridge & Iron Co., manufacturers, Roanoke, Va.
 J. H. Walker, consulting agent, Rusk, Texas.
 W. H. Walkup, general contractor, Clarendon, Ark.
 Walsh & Weidner Boiler Co., Chattanooga, Tenn.
 Warren Webster & Co., manufacturers, Atlanta, Ga.
 Watson-Flagg Engineering Co., New York.
 Weatherford & Carey Bros., Memphis, Tenn.
 P. H. Weathers, general contractor, Jackson, Miss.
 West Construction Co., Chattanooga, Tenn.
 Wesco Supply Co., supplies, St. Louis, Mo.
 Westinghouse Electric & Manufacturing Co., Atlanta, Ga.
 W. F. Wilcox, consulting engineer, Meridian, Miss.

A. D. Wilcox, city engineer, Jackson, Miss.
 Ben Willard, General Electric Co., New Orleans, La.
 Chas. C. Wilson, consulting engineer, Columbia, S. C.
 Nisbet Wingfield, consulting engineer, Augusta, Ga.
 Algernon Blair, general contractor, Montgomery, Ala.
 Heine Boiler Co., New Orleans, La.
 Herron Pump & Foundry Co., Chattanooga, Tenn.
 E. F. Kitson, C.E., So. Con. Co., Norfolk, Va.
 George McKoy, The Leadite Company, Philadelphia, Pa.
 W. H. Roney, general contractor, Chicago, Ill.

Cincinnati as a Coal Market.

[Cincinnati Enquirer.]

"Cincinnati has loomed up during the past five years as an important factor in the wholesale coal market of the Middle West," said William Clauss, president of the Cincinnati Gas Coke, Coal & Mining Co., last night, when asked as to what standing this city had in the coal trade.

"Few people," he said, "have any idea of the enormous amount of coal tonnage that is received here annually, but those who are conversant with the coal business can readily understand why Cincinnati plays such an important part in the coal trade, and it will increase in importance from year to year, because of its location on the Ohio river. This fact will always make it possible for Cincinnati to secure a low freight rate on coal from the Pittsburgh and West Virginia coal fields, and it is this cheap rate, which the railroads centering here must meet, that will assure always to this city an importance in the coal market. This fact will always assure to this city a cheap coal market and make it possible for coal dealers here to compete for the wholesale coal trade in the Northwest and the Middle West. At present coal is shipped from Cincinnati as far north as Minnesota and west to Nebraska. It can be truthfully stated that west of Pittsburgh, Cincinnati stands second as a wholesale coal market, Chicago being ahead of this city.

"Few persons have any idea of the vast tonnage of coal that is received here annually. There is received here every year over 50,000,000 tons of coal. At the low rate of \$2 a ton this means over \$100,000,000 a year in this business alone.

"The grade of coal that is received here is of the highest and best on the average received in any city in the country. This coming winter season a new grade of coal will be received here, known as the 'Elkhorn Smokeless,' which, according to the analysis made by the officials of the United States government, has the highest units of heat of any coal mined in this country and has also the most lasting qualities so far as its properties for keeping fire.

"According to the report of government officials, this coal has 15,050 British thermal heat units per pound, which exceeds all other known coal by 1500 British thermal heat units per pound, which is the basis of measurement the world over in heat units both for coal and gas. It is said that this coal is positively sootless and will enable manufacturers to abate the smoke nuisance without their incurring any extra expense for the manipulation of their boilers.

"Again referring to the cheap rate for coal freight on the Ohio river, this makes it possible for manufacturers in this city to secure the cheapest fuel of any city in the country west of Pittsburgh, and this will be the one great factor that will make of Cincinnati the greatest manufacturing district in the Middle West.

"I predict that Cincinnati, yes, and the

whole Ohio valley, will in a few years teem with large steel mills, and that this city is destined to become the great competitor of Pittsburgh in the manufacture of steel. This will not come about in a day, week, month or a year, but if we could see this city a half a century from now we would see here great steel mills which have been located in this city because of its cheap coal.

"After the Ohio river has been improved, which will be the most important thing ever carried on by the national government for the benefit of Cincinnati, so that coal can be brought here without a too low water stage, Cincinnati will unquestionably be the greatest coal market in the Middle West. After this improvement has been made there no longer will be any risk in harboring coal barges here in the winter time, as then there will be no danger of their being crushed by ice floes.

"During the past five years Cincinnati has increased her coal tonnage fully 100 per cent., and this will, in turn, be increased 150 per cent. during the next five years.

"Not only is Cincinnati developing into a great coal market, but it is also becoming a great factor in the coke trade of the country, and this line of fuel has greatly increased during the past three years. Coke is now furnished from here to territories that a few years ago never thought of coming to this city for that class of fuel.

"When the Big Sandy river is locked and dammed it will mean still cheaper coal for this city, and I can state that it will mean the bringing here the best coal in the world at the cheapest price to any city of its size in the United States. The work on this river is now being carried on by the government, and will be completed in about five years.

"There is a movement on foot to establish here two great by-product plants, which will make it possible to give manufacturers here coke at so ridiculously low price that it will attract many manufacturing plants here and at the same time dispense entirely with the smoke nuisance. With the establishment of these plants will come steel mills and other factories dependent on them. I believe this will take place within the next five years.

"Because of these facts and the cheap fuel here I am a firm believer that Cincinnati is destined to become a great manufacturing center."

Progress at Memphis.

[Special Cor. Manufacturers' Record.]
 Memphis, Tenn., August 25.

Work will begin early next month on the 10-story addition to the Peabody Hotel that will be taken over September 1 by the Memphis Hotel Co.

Work has begun on the factory building of A. G. Wagner & Co. It will cost \$30,000 and will be used as a plant for the manufacture of candy, baking powder, etc.

On September 1 Charles A. Price, for several years purchasing agent of the American Car & Foundry Co., with his headquarters at Detroit, Mich., will take charge of the management of the affairs of the company here, including the large car works at Binghampton, a suburb of Memphis. Geo. L. Henrion, his predecessor, will go to Madison, Wis.

Mr. F. L. Merritt of Norfolk, Va., land and industrial agent of the Norfolk & Southern Railroad, has issued an attractive pamphlet giving some facts about Tidewater Virginia and Eastern North Carolina of value to persons who would engage in agriculture or manufacturing in those parts. The pamphlet tells of the climate, of crops that have been raised and of the progress made in manufacturing industries.

DEVELOPMENTS IN NORTH ARKANSAS ZINC FIELDS

By ALEX. C. HULL, Ex-Secretary of State of Arkansas.

[Written for the Manufacturers' Record.]

There is a section of country in central North Arkansas, embracing the counties of Marion, Boone, Searcy, Newton and Baxter, that contains immense deposits of zinc and lead and more or less of copper, iron, marble, kaolin, onyx, fire-clay, etc. Indeed, it is believed by many competent to judge, and who have examined the conditions thoroughly, that this section will in the very near future prove to be the greatest mining field in the world.

The entire region embraced in the counties mentioned appears to be one vast deposit of zinc, lead and marble, the first named largely predominating. North Arkansas is not only making a record as a mining country, but as an agricultural and fruit country as well. It already has a record that any country might well be very proud of.

This section, lying as it does between the Boston range of mountains on the south and the Missouri line on the north, is very rough and broken, consisting of narrow valleys and gorges between the hills, which are from 50 to 150 feet high. The gorges and valleys contain streams of pure, clear, health-giving waters in abundance, while the hillsides are unexcelled in their adaptability to fruit culture, are covered with valuable timber and underlaid with rich deposits of high-grade ores. It has been demonstrated by practical development that both zinc and lead exist there in largely paying quantities. There is no longer any doubt as to the mineral character of the country; in fact, the North Arkansas zinc fields have of late years become so well known and famous that many have been attracted to them, and many mining men of both scientific and practical knowledge have thoroughly investigated the field, and always with satisfactory results.

The one great obstacle in the way of the successful development of the country in the past—the absence of transportation—has at last been overcome by the construction of railroads through the territory. The fact alone that a railroad has been constructed through the zinc region at an average of possibly \$50,000 a mile is sufficient evidence that the projectors of the road were satisfied that the ore is there, for no road would be constructed at such an enormous expense unless it expected a heavy tonnage in return. Already many thousands of dollars have been invested there, and development work is now going on in earnest. The minerals are exposed in many places on the hillsides and in the creek beds in the gorges, which makes mining cheap and easy.

A great deal has been said and written about the Arkansas zinc fields in a general way, but it is my purpose in this article to give some facts as to what is being done in the way of actual development and operation. I have just completed a two weeks' personal inspection of the various mines and plants in operation in the several districts, having gone in and through the mines, several hundred feet under the ground in several instances, through the mills or concentrating plants while in operation, where I interviewed the superintendents or managers in charge. I was greatly surprised at the great amount of development and improvements done during the last two years. The territory is divided into districts, and I shall deal with its description by districts, beginning with the Dodd City and Jimmie's Creek districts together, as they are so closely and almost inseparably connected.

One of the first mines visited was the "Beaty," or the "New South." It is

owned and operated by the Philadelphia Zinc Co., the stockholders of which live principally in New Jersey. O. P. Mahoney is superintendent and resident manager. There are 160 acres in the tract on which the mine is located. They have a shaft 50 feet deep, from the bottom of which is a drift 15 feet wide, 10 feet high and 100 feet into the mountain, showing the finest zinc ore I think that I saw during my tour. The walls on either side of the drift showed a solid face of ore-bearing rock, and at the end of the drift the miners were taking out carloads of ore that averaged 62 per cent. in concentrates. They have shipped 250 tons of high-grade ore that brought top prices in the market. They have a well-equipped 60-ton mill, which is running all the time. They haul their ore eight miles on wagons to the railroad, and still they realize a handsome profit.

The Susquehannah mine, embracing about 200 acres, is owned and operated by the Susquehannah Mining & Milling Co., a new organization, having only had possession of the property since the first of May last. Daniel P. Dickson of Lancaster, Ohio, is president; Edwin Kelton of Columbus, Ohio, secretary and treasurer, and John G. Goghan is general and resident manager. Their mine works consists of two shafts 65 and 75 feet deep, respectively, showing a fine grade of disseminated ore (blende) all the way down. They have a fully-equipped 100-ton mill in operation and are working a force of 32 men, turning out 64 per cent. ore. The former owners shipped a large quantity of ore from this mine. The present company is capitalized at \$50,000, and owns several other tracts in the Dodd City district. The former owners, in order to get an idea of the extent of their ore, put down a drill hole 192 feet, which showed three runs of ore, one of which was 19 feet thick, and the last run was struck at a depth of 165 feet and the drill was stopped before going through the run, and its thickness is still unknown. This and many other tests amply prove the existence of deep ore in the Dodd City district.

The Iola property is owned by Iola (Kan.) people. Geo. A. Fry is president of the company, and there are 160 acres in the tract. The mining operations are by the Stevens Point Zinc & Lead Co. of Wisconsin, under a 10-acre lease; N. O. Watkins, manager. They have a mill of 150 tons capacity, and are now putting in a six-drill air compressor and a large tank. Nine hundred tons of ore have already been shipped from this mine, having been hauled six miles to the railroad. The ore shipped has averaged 60 per cent., and they are now getting out 63 per cent. ore. This mine, as in many other cases in this district, is a mountain-side proposition. The diggings consist of a main tunnel 300 feet into the mountain, starting in at the base. The main tunnel has produced paying ore all the way, and at the end is an ore face 31x18 feet. In the south tunnel is another face of ore 50 feet wide and 20 feet high, and in still another tunnel called the southwest tunnel is a face 14 wide by 20 feet high.

The Broome county mine is owned by Binghamton people, and W. D. Jones is superintendent. They have done no extensive mining yet, but have developed sufficient ore body to justify operation. They have a mountain of ore, and if there is anything in indications they have deep ore also. They have a 200-ton mill costing about \$13,000, an eight-drill air compressor, one 100-horse-power engine and two

80-horse-power boilers. They have shipped some ore, and are now in position to begin operations in earnest.

The Black Bear is a new mine just developed one and a-half miles west of the Iola that bids fair to become one of the paying propositions of the country. They have a shaft 100 feet deep, and have struck an 18-foot run of very high-grade ore. It is owned by a company of Chicago capitalists, who will erect a mill at once. There is a large amount of ore on the dump.

The Onwata is another very fine property, owned and operated by the Onwata Mineral Co. of Portland, Maine; W. R. Jenkins, superintendent; J. E. Fulcher, ground foreman; 650 acres in the tract. Diggings consist of one tunnel 400 feet into the mountain, showing a face of carbonate ore 15 feet wide and 18 feet high. They have a 100-ton mill, which has been in operation just two months; cost of mill, \$6000. They work a force of 25 men in the mine and mill together, and have boarding-houses for their employees, tool-houses, blacksmith shops, etc.

The Pilot Rock is another promising mine near Dodd City, which sold to a Mississippi capitalist a few days ago for \$25,000. The development work consists of a shaft and a tunnel showing good ore. About 40 tons have been shipped from it, but it is not worked at present. It is thought the new owner will begin operations soon.

The Markle mine is one of the earliest developments in the country, and embraces 50 acres. It was opened by two shafts and two tunnels, which have produced a great deal of both zinc and lead ore of the highest grade. The main shaft is 77 feet deep, showing zinc blende through the first 40 feet. In the bottom of the shaft is another run, thus showing two runs of rich zinc ore in one shaft at different levels. The second shaft is 80 feet south of the main shaft and is 40 feet deep, and shows 10 feet of disseminated lead ore, beginning within 10 feet of the surface, and below the lead zinc blende was struck and continues to the bottom of the shaft. There is a small 30-ton mill on this property. This mine, though recognized by everybody as one of the best properties in the country, is idle. It is owned principally by non-residents, and owing to some differences among them they have not worked it lately.

The Big Buffalo property embraces 60 acres in fee, and is owned by Little Rock people, and is without doubt one of the most valuable properties in the entire zinc belt. One of the best-posted miners in Marion county told the writer that, in his opinion, the Big Buffalo contained the largest deposit of ore in Marion county, aside from the famous Morning Star. There are six cuts or tunnels on this property showing ore faces ranging from 6x10 feet to 14x20 feet, and the estimated amount of ore on the dumps is something over 500 tons. There are four other cuts showing more or less ore. The Big Buffalo is one mile from the Beaty, and within hauling distance from the railroad, and has a natural mill site near the center of the tract at the mouth of two hollows that furnish an abundance of water for operating purposes.

There are many other valuable properties in this territory which could not be visited in the limited time we had, prominent among which are the Governor Eagle, Bear Hill, Olympia, Big Elephant, Monkey Hill, Compound, Lost Bell, North Star and many others; in fact, more than 300 openings have been made within a radius of five miles of Dodd City, and almost all of them attended with success.

In company with Mr. E. S. Payne and Mr. W. S. Tegarden of Yellville, I visited the Rush Creek district, in the southern

portion of Marion county. The Morning Star mine, the greatest in the country, has been leased recently to parties who will operate it continuously. This is the largest and best-developed mine in Arkansas, and is well known by everybody. There is a good 100-ton mill there, and thousands of tons of fine ore have been shipped. It is the pioneer mine, and has a showing of ore that is beyond my power to adequately describe.

The Red Cloud is owned by George W. Chase and others of Arkansas, in connection with some Pennsylvania people. Mr. Chase opened and developed the Morning Star. There are 640 acres in the Red Cloud tract. The dump of ore-bearing rock is conservatively estimated at 5000 tons, which will easily average 10 per cent. or 500 tons of concentrates. It shows a ledge or face of ore 250 feet wide and from 10 to 14 feet thick. Although it has never been worked for profit, has no mill, it is without doubt one of the most valuable deposits in the country.

The Silver Hollow mine is one of the paying propositions of the Rush Creek district. It is owned and operated by a Pittsburg (Pa.) company, which has worked it for two years. They have a tunnel 500 feet into the mountain, from which they have drifted in various directions and have never been out of ore. Between 3000 and 4000 tons of ore have been shipped from the mine. They have a face of ore 25 feet thick, which yields from 7 to 35 per cent. concentrates. The mill is of 100 tons capacity, and the average expense of running the mine and mill is \$75, and they get from 7 to 35 tons of ore per day. The Tegarden brothers opened this mine as a mineral claim 11 years ago.

The Beulah, 40 acres, has a 100-ton plant, and is owned by Washington (D. C.) people. In the upper run they have a drift 140 feet, showing a six-foot run of fine ore, and a working face of 280 feet. Several carloads of high-grade ore have been shipped. They also have a second run of ore at a depth of 65 feet as shown by drilling, and another 18 feet thick at a depth of 270 feet.

White Eagle mine has been worked under a 20-acre lease, and they have shipped about 550 tons of ore taken from 30 to 40 feet below the Buffalo river. It is owned by New York people, and they have a 100-ton mill located on the bank of the Buffalo river. They also have a hill-side run prospected which is on a level with the Morning Star. Tegarden Bros. developed this mine also.

The McIntosh mine embraces 80 acres adjoining Morning Star. They have a 100-ton mill, and have drifted 175 feet in good ore, with ore also above and below the drift, and have shipped several hundred tons of ore. This mine is owned by Boston people.

The Bonanza, 160 acres, is owned by Dr. H. Wells and Little Rock people. They are developing it and finding good ore. The mine is about ready for a mill.

The Climax, 120 acres, is owned by New York people. They have a small plant and one of the richest prospects in the district. They have a 12-foot face of ore in the drift, and have shipped about 40 tons of ore. In one instance, out of 35 tons of ore rock they got nine tons of concentrates. The ore runs all the time from 10 to 25 per cent.

The Anglo-American is owned and operated by Detroit (Mich.) people, who have a 50-ton mill in operation and plenty of good ore. There are 80 acres in the tract.

The Boat Creek-Carbonate Point, 450 acres, is owned by Arkansas people, and the development work consists principally of two large cuts and one shaft. The open cuts show a face of disseminated ore from 8 to 10 feet thick, with ore in the floor of the cut. The shaft is 52 feet deep.

The ore was struck at 20 feet, and continued very rich to the 46-foot level, making a 17-foot run. There are about 500 tons of ore rock on the dumps that will run easily 10 per cent. in concentrates. This is not considered a mine in point of development, having only been prospected, but it will be one of the great mines of the country.

The mines in the Rush Creek district are all from 5 to 10 miles from the railroad, and the miners and operators are expecting a branch road in the near future, and are not therefore working as they otherwise would, but waiting, many of them, for better transportation facilities.

The Sugar Orchard district is mainly in Boone county, the town of Zinc, situated on the White River Railroad, being about the center of the district. I only had time to visit a few of the mines here, but those I did see are as follows:

Jackpot, 360 acres in the tract, is owned by U. S. Clark of St. Louis, Mo. There are 200 tons of ore-bearing rock on the dump now that will average from 10 to 15 per cent. of concentrates. There is a 40-ton mill on the property with an air compressor in connection. The mining work consists of open cuts and drifts in the mountain side, showing a large face of ore. It is located one-half mile from the town of Zinc, and is a very fine property, sufficiently developed to warrant constant operation.

The Frisco mine, 280 acres, adjoining the Jackpot, is also owned by Mr. Clark. It has a fine showing of ore, and amply justifies the expense of a mill and operation. Just why he is not working his properties I was unable to learn.

Coon Hollow tract contains 140 acres, and is owned by Cantrell & Bolinger of Lead Hill, Ark. Messrs. Harmon & Butram of Joplin, Mo., have a 22 years' lease on this property and a 100-ton mill up, and have commenced operations, having shipped one carload of high-grade ore, with another carload in the bins when we were there. They have a five-foot face of good paying ore in three places, and have not gotten through the vein, therefore they do not know how thick the vein is.

The Alma is a mine that has been worked under a lease, but badly managed and developed, and is not being worked at all now. There is a 100-ton mill on it, and they have shipped several carloads of ore in the past, hauling it to Harrison, a distance of about 12 miles.

The Madison, 120 acres, is owned and operated by Indiana people. They have a 100-ton mill in good shape, and have shipped several carloads of ore (blende and carbonate). The mill is not running now, but will be soon. They were sinking a shaft and otherwise developing when I was there. It is a first-class property.

There are a large number of non-resident property-holders in the Sugar Orchard mining district, and if they would work and develop their properties it would cause Sugar Orchard to come to the front as one of the very best districts in Arkansas. This is the only mining district that either of the new railroads really penetrate advantageously. The White River road runs through the center of Sugar Orchard.

ACTIVITY AT WHEELING.

Railroad and Building Operations in Full Swing.

[Special Cor. Manufacturers' Record.]
Wheeling, W. Va., August 24.

The dog days find Wheeling just as busy as in other seasons of the year, and there is no let-up in business activity in all lines. The building boom which was inaugurated a year ago is keeping the building trades on the jump, and finds its reflection in the permits issued by the building inspector's office. During six months, beginning Feb-

ruary 7, when the new building ordinance went into effect, and ending August 7, nearly 300 building permits were issued, involving expenditures aggregating \$582,599.45. These figures do not include the 12-story Schmulbach building, which will be completed about January 1 and cost \$600,000, or the new postoffice, which will be ready for occupancy next March, at a cost of \$500,000. Nor do the estimates cover the many thriving suburbs of Wheeling, where building activity is just as great, so that it is safe to say that building operations to the extent of \$1,500,000 are now in progress in the Wheeling district.

The Baltimore & Ohio improvements in themselves form a larger proposition than all of them, as they will cost \$2,000,000, and they are going forward with rapidity. Several large stone piers for the new bridge over Wheeling creek have been finished, and the work of razing buildings for the site of the passenger depot is well under way. It will be located in the heart of town, on the square bounded by Market and Main and 16th and 17th streets. The freight depots will be large and modern, relieving merchants and manufacturers of the congestion of freight in the present quarters, from which they have suffered for some time.

It is rumored in connection with these Baltimore & Ohio improvements that the company plans to build immense shops a few miles below Wheeling at Glendale. The report fits in admirably with the present activity of the road here, and bears the earmarks of truth. It is known that options have been secured on about 70 acres of Glendale land, and that several high officials have visited the property. The land is an ideal location, being perfectly level and lying high above the highest flood line, and no better place could be secured in the valley. It is also reported that the Baltimore & Ohio proposes to construct bridges over the Ohio river from the present location of the depots to Bridgeport, in order to secure better connections between the Pittsburg and C. & L. & W. divisions of the road, and many observing persons see indications of the project in the way the work is being done for elevated tracks and new depots. These rumors have stirred much speculation here, and future developments will be watched with interest.

A nearby project that possesses local importance is the new street-railway line from Wellsburg, Brooke county, 16 miles north of Wheeling, to Bethany, a college town seven miles east of Wellsburg. The road is backed by leading Wellsburg citizens, including such men as Samuel George, a leading manufacturer, and W. W. Beall, a prominent banker, while Dr. Thos. E. Cramblett, president of Bethany College, is president of the concern, which is known as the Wellsburg & Bethany Street Railway Co. The line runs through the most beautiful and picturesque section of the northern panhandle; will cost about \$150,000. Nearly all of the money has already been subscribed, Wellsburg and Wheeling men taking most of it.

ALBERT PHENIX.

A report from Southport and Wilmington, N. C., says it is proposed to establish a steamboat line between Southport and Wilmington. Among those interested are Dr. D. I. Watson, Capt. M. T. Craig and E. H. Cranmer, Esq., of Southport.

The Board of Trade of Winston-Salem, N. C., is circulating a folder showing the wonderful progress made by that city as a manufacturing center.

The Fifth State Development Convention of Kentucky will be held at Winchester October 10, 11 and 12.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

CENTRAL OF GEORGIA.

Great Progress Displayed by Annual Report—Gratifying Financial Returns.

The eleventh annual report of the Central of Georgia Railway Co., of which a short abstract was recently published in the MANUFACTURERS' RECORD, appears in this issue, and the facts presented therein strikingly illustrate the progress made by one of the best known of Southern roads, a growth which is typical of railways in this section. The gross earnings for the year ended June 30, 1906, were \$11,396,123, the operating expenses and taxes were \$8,235,213, the net earnings \$3,160,910 and the total income \$3,435,532, all these results displaying substantial increases over 1905, the gain in gross earnings being nearly 12½ per cent., and in net about 16½ per cent. The freight earnings during the year were \$7,737,061, an increase of 13.64 per cent. as compared with 1905, and the earnings from passengers were \$2,754,465, an increase of 14.97 per cent. also as compared with last year. The credit balance to profit and loss is \$647,866. The total assets of the company are \$62,075,343, an increase of \$3,074,081. The capital stock of the company is \$5,000,000, funded debt \$50,035,000 and equipment trust obligations \$2,429,765.

The growth of the company during the last five years is shown by a comparative table covering the fiscal years from 1901 to 1906, inclusive. In 1901 the gross earnings were \$6,920,715, the operating expenses and taxes were \$4,901,558 and the net earnings were \$1,929,156. The increases since that time, comparison being made with the totals for 1906, are as follows: Gross earnings, increase, \$4,475,208; operating expenses and taxes, increase, \$3,243,655; net earnings, increase, \$1,231,754. The net earnings are now 27.74 per cent. of the gross earnings, there having been a steady gain in this respect since 1903. The revenue train mileage in 1901 was 4,802,640; it is now 6,154,064. The revenue ton mileage in 1901 was 437,000,554; it is now 701,066,873. The revenue passenger mileage in 1901 was 70,478,468, and it is now 112,175,658.

The changes in equipment during 10 years, as noted in the report, also speak eloquently of the company's growth. In 1896 the company had 211 locomotives, 296 passenger cars, 4785 freight cars and 255 service cars. It now has 252 locomotives, 230 passenger cars, 9047 freight cars and 415 service cars. The report also says that notwithstanding liberal expenditures for general improvements, the company has had at times considerable difficulty to properly handle all business offered, but with the additional facilities authorized and the increased number of locomotives and cars contracted for it is felt that the company will be better able to take care of heavy traffic this fall.

The company now operates mileage as follows: In Georgia, 1309 miles; in Alabama, 564 miles; in Tennessee, 4½ miles; total, 1877½ miles. In 1901 the total was 1678 miles. The company is now building in Georgia about 23¼ miles of line from Greenville to Raymond, on the Greenville and Newnan main line. In Alabama it has built the Henry Ellen spur to Margaret, Ala., 10½ miles. This latter line has since been put in operation. On the line from Columbus to Greenville, Ga., 49½ miles of track was changed from narrow to standard gauge during the year. Instead of rebuilding trestles to standard gauge, about two miles are being eliminated by providing suitable waterways and filling. Sub-

stantial betterments are also being made to both alignment and grade.

The extensive terminal improvements at both Albany and Savannah, Ga., are nearing completion. This work includes enlargement of the yards and the construction of a receiving yard at Savannah. At Athens, Ga., considerable work has been done on the new yard and the new combination freight and passenger station. The work of providing needed improvements in building passing tracks and warehouse tracks is being carried on and tends greatly to improve the train service. During the year 100 new side and spur tracks were built, having a total of about 13½ miles of line, while 58 side and spur tracks were extended. Considerable new rail of 70 and 80-pound sections, respectively, has been laid.

The improvement and extension of the property has also been continued in other ways, some new buildings having been erected at various points, others having been extended. New bridges have been constructed and 110 trestles were filled in, suitable waterways being provided for drainage. In no way is the spirit of progress which pervades the company better illustrated than by the provision of more adequate structures at different stations and terminals. Among the work of this character was the completion of fertilizer storage sheds at Savannah, the erection of combination freight and passenger stations at Coffee Springs, Dozier, Slocumb and Lockhart, Ala., and Fort Oglethorpe, Mansfield and Raymond, Ga. Other improvements were made at Americus, Albany, Savannah and Cameron, Ga., and Louisville, Ala. At Savannah the Wadley-street warehouse was extended by the erection of an addition.

An interlocking plant was completed at Central Junction, near Savannah, Ga., in connection with the Atlantic Coast Line and Seaboard Air Line. Additions were also made to the interlocking plant at Oakland City, near Atlanta. The telegraph between Savannah and Macon and Macon and Smithville was increased by the completion of additional line and other lines authorized between Macon and Griffin and also between Albany and Smithville are to be completed in time for the fall business. The track was benefited by putting in 960,957 crossties and ballast of stone, slag, gravel and cinders was placed on the line.

The strengthening of steel bridges to permit the use of heavier motive power has occupied the attention of the management, and a considerable amount of bridge work begun during the previous fiscal year was completed, among this sort of improvement being work at Macon, Atlanta, Big Tallapoosa river, the Etowah river, the Oostanaula river and the Chattooga river. Contracts were given for 13,000 tons of 80-pound new steel rails and 10,000 tons of 70-pound new steel rails, and there were placed in track a total of 9368 tons, or something more than 81 miles of rail, of which 6166 tons were 70-pound rails covering 56 miles, the balance being of the 80-pound sections.

The industrial growth of the country penetrated by the Central of Georgia Railway is shown by the statement that during the year there were established on or adjacent to its lines 194 new industries, representing 29 classes, with a total capital of \$6,506,880 and employing 7108 hands. There were planted 1,641,681 fruit trees along the line during the year, and there was an increase of 2,088,854 trees coming into bearing during the same period.

The building of the Henry Ellen spur, as above noted, has relation to another industry, the development of the company's coal property in the Upper Cahaba field in St. Clair county, Alabama. This property has been leased to a responsible com-

pany for a royalty, and is now being substantially developed. The minimum production now guaranteed is 600 tons of coal per day, and this, under the contract, is to be increased every six months until the output reaches 2000 tons a day. The coal is of good quality, and the development of the mine indicates that the property is very valuable.

The report is very complete, and contains much other information of interest to the owners and others concerned in the property.

Mr. J. F. Hanson is president of the company; Alexander R. Lawton, first vice-president; W. A. Winburn, second vice-president; C. C. Williams, secretary; T. M. Cunningham, treasurer; T. S. Moise, general manager.

NEW LINE TO NEW ORLEANS.

A Railroad Planned From Natchez—Santa Fe Said to Be Interested.

The recent report that another trunk line is seeking to enter New Orleans seems to be confirmed by a report from that city which says that Thomas Reber and W. A. S. Wheeler of Natchez, Miss., have been in New Orleans in connection with an application for the use of the public belt railway and for permission to build a second track along the river front. This matter is now before the Belt Railway Commission, but it is said that options have been secured upon a site for warehouse and terminals and that a survey has been made for the line from Natchez to New Orleans via Woodville, Miss., and Clinton, La.

Mr. Reber is quoted as saying: "We are not in position to give definite information further than that New Orleans is to be the terminus of another trunk line, that the surveys have been made, the capital is ready and we are now waiting on the Belt Commission. Our line from New Orleans to Natchez will be approximately 160 miles long and will tap a territory not now reached by a railroad. It will place New Orleans in close communication with some of the richest agricultural lands in Mississippi and Louisiana."

Messrs. Reber and Wheeler are also interested in the proposed Vicksburg, Natchez & Gulf Railroad, which is to be built from Natchez and Vicksburg to Gulfport, Miss., and will have 200 or 300 miles of line. To build this line, which is said to be backed principally by Paris capital, they are about to organize a construction company. Mr. Wheeler is reported as saying that a charter is now being prepared for the Natchez & New Orleans line.

In connection with this report it is said that the Santa Fe system is back of the plan. The Santa Fe is now building from De Ridder, La., toward Alexandria, and it is asserted that the best route to New Orleans is through Natchez.

Another report says with equal positiveness that it is the Kansas City Southern which desires to enter the Crescent City.

Missouri, Arkansas & Southeastern.

Mr. A. A. Webber, secretary of the Batesville Board of Trade, Batesville, Ark., writes the MANUFACTURERS' RECORD that the Missouri, Arkansas & Southeastern Railway Co., which is chartered to build a line 54 miles long from Batesville, on the St. Louis, Iron Mountain & Southern Railroad, to Black Rock, Ark., on the St. Louis & San Francisco Railroad, has made a survey for the entire distance, and about 30 miles of right of way with terminal grounds at each end have been secured, while part of the locating survey is made. The promoter and president of the company, Mr. R. W. Earnheart of Batesville, is now occupied with the financial end of the proposition.

The projected line runs through one of

the largest deposits of manganese ore and marble lands; it also passes through what is known as the Calamine zinc district in Sharp county, which Mr. Webber says is as rich in high-grade zinc ore as either the North Arkansas or the Joplin district, and besides traverses a fine agricultural and timber country.

Continuing, Mr. Webber says: "There are millions and millions of tons of cement and limestone rock on this route; also some lithograph stone, red marble, tripoli, lead, iron and other minerals. This line, when constructed, will not only connect two great railway systems, the Missouri Pacific-Iron Mountain and the Rock Island-Frisco, but will open one of the richest sections in the United States."

Southwest Missouri Railroad.

President A. H. Rogers writes from Webb City, Mo., to the MANUFACTURERS' RECORD confirming the report that the Southwest Missouri Railroad Co. of Webb City has been incorporated and has acquired the property of the Southwest Missouri Electric Railway Co. and the Webb City Northern Electric Railroad Co., comprising about 65 miles of electric railway track already constructed and in operation. Mr. Rogers also says that it is the intention of the new company to build important extensions to the lines already in existence. Its officers are the same as those of the Southwest Missouri Electric Railway Co., namely, A. H. Rogers, president and treasurer, Webb City, Mo.; E. Z. Wallower, vice-president, and A. G. Knisely, secretary, of Harrisburg, Pa.; E. J. Pratt, electrical and mechanical engineer; S. W. Gunsalus, superintendent transportation; W. E. McMechan, auditor; J. B. Hodgdon, chief engineer, and C. E. Baker, roadmaster, all of Webb City, Missouri.

New Equipment, Rails, Etc.

The New Orleans & Northeastern Railroad is reported to have ordered 1000 tons of rail, the Vicksburg, Shreveport & Pacific Railway 2000 tons and the Alabama & Vicksburg 1500 tons, all for next year's delivery.

The Missouri Pacific Railway, it is reported, has given the American Car & Foundry Co. an order for 500 gondolas.

The Santa Fe system is reported to have ordered from the American Car & Foundry Co. 200 tank cars with steel underframes and 20 cabooses.

It is said that the equipment order of the Harriman lines will include about 185 locomotives, and that the contract for freight cars will be placed immediately. About 200 passenger cars may be ordered later.

The New Orleans Great Northern Railroad has ordered four engines from the American Locomotive Co.

Carolina Mineral Railway.

Mr. A. J. Moore, second vice-president and manager of the Carolina Mineral Railroad Co., writes the MANUFACTURERS' RECORD that the line is an independent one and is now partially built, but with work still progressing. The road is for the purpose of collecting ores in the district around Waxhaw, N. C., and for bringing them to a central point for reduction. The line will probably reach its terminals in 1907.

Mr. Moore is general superintendent of the mines and mills of the Colossus Gold Mining & Milling Co. at Waxhaw, Union county, North Carolina.

No Grade Crossings Hereafter.

The Annapolis, Baltimore & Washington Railroad Co., which is connected with the Washington, Baltimore & Annapolis Electric Railway Co., proposes to convert

its line from steam to electricity, and has obtained permission from the county commissioners in Anne Arundel county, Maryland, to build several overhead and under-way crossings of public roads, it being the purpose of the company to have no grade crossings of highways. This line runs from Annapolis Junction, on the Baltimore & Ohio Railroad, via Odenton, on the Pennsylvania Railroad, to Annapolis, Md., about 21 miles. The main line of the electric road from Baltimore to Washington will intersect it near Odenton, connection for Annapolis being made there. Construction is now rapidly progressing on the main line.

Wynne, Newport & Western.

Mr. M. M. Stuckey, attorney for the Wynne, Newport & Western Railway, writes from Newport, Ark., to the MANUFACTURERS' RECORD that the road proposed is a short line connecting Wynne, Ark., with Newport, Ark., a distance of 50 miles. It will open up a rich agricultural section of country and make connections with the Cotton Belt at Fair Oaks, the Iron Mountain at Wynne and the Rock Island and Iron Mountain at Newport. The capital stock is \$280,000, of which \$90,000 has been subscribed. The officers are O. N. Killough, president, Wynne, Ark.; Isaac Goldman, vice-president, St. Louis, Mo.; W. H. Barnes, secretary, Wynne, Ark.; Sigmund Wolf, treasurer, St. Louis, Mo., and M. M. Stuckey, attorney, Newport, Ark.

The Havana Limited.

John M. Beall, general passenger agent of the Mobile & Ohio Railroad, St. Louis, is reported as saying concerning the service proposed for next winter: "The Havana Limited earned both glory and revenue throughout its inaugural season. It will resume service at the opening of the approaching season. As to equipment, it will be palatial; as to schedule, fast; as to service, perfect." Plans for this service are now being laid by Mr. Charlton of the Chicago & Alton, Mr. Beall of the Mobile & Ohio and Mr. Ruland of the Munson Line, and they expect to make many improvements in their combination train and steamship route between Chicago, St. Louis, Mobile and Havana.

Would Build a Tram Line.

Mr. John Hardy Purvis, president of the Farmers' Realty Co., 4 East Bryan street, Savannah, Ga., writes the MANUFACTURERS' RECORD that he recently purchased about 50,000 acres of timbered lands in Southwest Georgia, and has orders for 300,000 cross-ties to be shipped to Baltimore and Philadelphia. He desires to build tram line for 35 or 40 miles to connect with three different railroads to the seaports. He also proposes to use the road for passengers, gradually locating settlers on the lands as laborers and farmers. He would like to get in correspondence with parties who would be interested in building such a line.

Memphis, Covington & Northern.

The W. K. Palmer Company, engineers, Kansas City, Mo., informs the MANUFACTURERS' RECORD that the line which they are surveying in Tennessee is to be an electric road from Memphis to Covington, whence it will go to Alamo and northern points; also to Jackson, Tenn. It is known as the Memphis, Covington & Northern Railway. For the present the W. K. Palmer Company represents the railroad, and no further particulars are available for announcement.

Kansas City Electric Terminal.

Mr. Willard E. Winner, president of the Development Corporation of St. Louis, St.

Louis, Mo., writes the MANUFACTURERS' RECORD concerning the Electric Terminal Railway of Kansas City, recently chartered, and confirming the report giving a list of the directors. Since then Mr. John Mayer, president of the Mayer Coal Co., has been elected president; Mr. Geo. H. Kahmann of the railroad contracting firm of Kahmann & McMurray, was elected vice-president; Henry G. Pert, formerly president of the Interurban, was elected treasurer, and Baylis Steele, secretary.

Appointments.

A dispatch from Topeka, Kan., says that W. B. Storey, Jr., has been appointed chief engineer for the Atchison, Topeka & Santa Fe Railway system, with headquarters at Chicago, and will take charge of his new office on September 1. Mr. Storey is now chief engineer of the Santa Fe lines between Chicago and Albuquerque, N. M., with headquarters at Topeka. Mr. C. A. Morse, chief engineer west of Albuquerque, is to succeed Mr. Storey at Topeka.

Gainesville to Sherman.

Mr. G. M. Rousseau, city secretary, Gainesville, Texas, writes the MANUFACTURERS' RECORD thus: "Gainesville will soon have interurban connections with Whitesboro and Sherman, Grayson county. The contractors have about eight miles of grading done from this point, and are pushing the work forward. The road will be laid with 90-pound rails. G. A. Haslinger and associates of New Orleans, La., are the promoters."

Railroad Notes.

It is reported that at the request of a committee from the lower counties of the Eastern Shore of Maryland the Western Maryland Railroad Co. has considered a suggestion that it build an extension to that part of the State.

A press report from Lexington, Ky., says that W. A. McDowell has been elected a director of the Lexington & Eastern Railway to fill a vacancy caused by the death of J. R. Barr. He was also elected general manager and chief engineer, which places were formerly held by Mr. Barr. Mr. McDowell has been assistant engineer and purchasing agent.

Paper from Cotton Stalk.

Some months ago the MANUFACTURERS' RECORD referred to the plans of W. H. Croll of Pine Mountain, Ga., for manufacturing paper from the cotton stalk. Plans for organizing a company have been formulated during the past week, and articles of incorporation have been filed by Messrs. W. H. Croll and C. M. Croll and Malvern Hill of Atlanta, Ga., for the Southern Cotton Stalk & Paper Co. This company is capitalized at \$100,000, and the incorporators expect to build a plant.

For Technical Training.

The recent Democratic State Convention of Texas adopted resolutions thanking Mr. V. W. Grubbs of Greenville, president of the State Board of Education, for his long and indefatigable labors in behalf of industrial and agricultural education in the public schools and recommending the establishment of a State department of agriculture and liberal provision for adequate agricultural and industrial training in the institutions of the State.

It is announced that the textile department at Charlotte, N. C., of the Southern Cotton Oil Co. has received a contract from the War Department for 10,000 felt mattresses for use in the United States army. The felt is made from the short cotton lint obtained from the seed purchased by the company.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

The Rhode Island Enlargement.

The Rhode Island Company of Spray, N. C., has broken ground for a 126-foot extension 100 feet wide, with basement 50x100 feet. This extension will be used for warping, slashing, drawing-in, weaving and finishing. Looms will be removed from present building and spindles substituted. The Saco & Pettie Machine Shops of Newton Upper Falls, Mass., will furnish the 4000 spindles, and the Crompton & Knowles Loom Works of Lowell, Mass., the looms. About \$50,000 will be expended on the addition. A Spray contractor will have charge of the work, and the structure will be built of brick, with nine-foot bays and large windows. About 100 additional operatives will be needed to keep the new machinery going, and the daily capacity of all the equipment will be 5800 pounds. The Rhode Island Company is now operating 5300 spindles and 50 looms. It was reported last May as to undertake this enlargement.

New England Mill Men.

At the semi-annual meeting at Lake Champlain on September 12-13 of the National Association of Cotton Manufacturers, formerly the New England Cotton Manufacturers' Association, Attorney-General Julius M. Mayer of New York city will make the welcoming address, and addresses will also be made by Messrs. Talcott Williams of Philadelphia and Harvie Jordan of Atlanta. The full program of the meeting has not been issued, but among the topics to be discussed will be Egyptian cotton, looms driven by direct-connected motors, recent developments in cotton manufacture, singeing, steam-boiler insurance in cotton mills a conservator of credit, textile education, the Curtis vertical turbine and the drawing-in of warps by machinery.

The Goldsboro Knitting Mills.

In a recent issue of the MANUFACTURERS' RECORD mention was made of the incorporation of the Goldsboro Knitting Mills of Goldsboro, N. C. This company has now organized, the following officers having been elected: President, George C. Royall; vice-president, James Rosenthal; secretary-treasurer, A. U. Korngay, and superintendent, A. L. Bassett. It has decided to install an equipment of knitting machinery for a daily production of 250 dozen pairs of hose, and estimates on the equipment are invited. A suitable brick building has been leased, and the plant is expected to be ready for operation by October 1 or 15. The capital stock authorized is \$250,000 and the subscribed capital is \$30,000.

The Calhoun Mills Incorporated.

The Calhoun Mills of Calhoun Falls, S. C., has been incorporated by Messrs. W. F. Cox, N. B. Sullivan, J. M. Evans, R. E. Ligon, P. K. McCully, J. S. Fowler and W. A. Watson, for the purpose of manufacturing cotton goods. This company is the one recently reported as to be organized by W. F. Cox, president of the Cox Manufacturing Co., Anderson, S. C., and his associates, leading cotton manufacturers of the State. It will build at Calhoun Falls a plant of 25,000 spindles and about

750 looms for the production of sheetings, and expects to begin construction work by October 1. The capital stock will be \$400,000. Mr. Cox can be addressed.

The McGee Manufacturing Co.

The McGee Manufacturing Co. of Greenville, S. C., has completed the improvements which have been in progress at its plant. It has expended about \$50,000 for new buildings and machinery for the production of woolen blankets, the daily capacity to be 400 blankets. These goods will be dyed and finished ready for market. The new buildings include a two-story 60x100-foot structure for the mill, a 50x100-foot warehouse, a 40x60 finishing plant building and other minor structures. Included with the new equipment is 44 broad looms, and these will permit the company to manufacture other woolen goods besides blankets.

The McAden Mills.

The MANUFACTURERS' RECORD is informed that the McAden Mills of McAdenville, N. C., will build another cotton factory, the new plant to be equipped with 10,000 spindles and complementary machinery and cost about \$200,000. The McAden company is also reported as to replace its 340 old looms with the most modern types of weaving machines. It is now building an office structure to cost \$5000, a public library to cost \$4000, and making some other improvements. Present equipment of textile machinery is 15,000 spindles and 340 looms.

A Water-Power and Mill Proposition.

It is stated that G. W. Reagan and associates of Gastonia, N. C., have purchased the Harkins water-power property on the Tuckaseegee river, one mile from Dillsboro, N. C., and will develop it. Their plans are said to involve the erection of a large cotton factory to be driven by electricity which will be transmitted from the water-power development and to distribute electricity generally for power and lighting purposes. Mr. Reagan is president of the Arlington Cotton Mills at Gastonia.

The Crescent Mills.

Some weeks ago the MANUFACTURERS' RECORD referred to the incorporation of the Crescent Mills of Bessemer City, N. C., the capital stock being \$150,000. It is now reported that the company has decided to build and equip a plant of 3000 spindles for the manufacture of 40s two-ply yarns, and that construction work will begin in the near future. Steam-power will be used. Mr. C. A. Davis is president of this company.

Want Cotton-Mill Machinery.

Messrs. Tatum & Smith of Centre, Ala., are interested in a plan to establish cotton mill. They invite makers of textile machinery to send them particulars as to horse-power required and operatives needed to work up from two to three bales of cotton daily into thread for rope and duck and for manufacturing the rope and duck.

Big Wool Shipment.

Dispatches from Del Rio, Texas, state that D. Hart has shipped 400,000 pounds of wool from this station and 100,000 pounds from Spofford. This is said to be the largest wool shipment this year, and it required 25 cars. The freight rates were nearly \$7500. The wool is being shipped East.

Big Shipment of Wool.

One of the largest shipments of wool out of Wheeling, W. Va., for quite a while was sent out last week by Horkheimer Bros., wool merchants. The firm had about 17 carloads of the product to ship to

Eastern correspondents. The shipment comprised about 225,000 pounds.

Textile Notes.

It is reported that the Sylvan Mills of Shelbyville, Tenn., will install considerable new machinery in order to largely increase its present output of cotton mill. The company is operating 3720 spindles and 104 looms.

It is stated that Tracey W. Pratt of Huntsville, Ala., is one of the projectors of the proposed \$400,000 cotton-mill company for Little Rock, Ark. Recent reports of a cotton-manufacturing enterprise to be established in Little Rock said that experienced cotton manufacturers of another part of the country were interested.

The Ashley Manufacturing Co. of Newberry, S. C., has completed the improvements it planned to the plant it purchased last April, and is now manufacturing high-grade half-hose. It finds the demand for its product so steady that the present equipment will be doubled during September, besides operating at night also after September 15. There are 40 machines in position now, and 60 operatives are employed.

IN JELICO DISTRICT.

Investments in Mineral and Timber Interests.

[Special Cor. Manufacturers' Record.]
Jellico, Ky.-Tenn., August 27.

Hundreds of thousands of dollars are now being drawn to this city and vicinity in the development of the mineral and timber interests, and the country is experiencing a healthy and rapid growth. Jellico lies partly in Whitley county, Kentucky, and partly in Campbell county, Tennessee. The city is the center of the coal-development industry, and also has other interests giving employment to large numbers. The United States Leather Co. has one of the largest tanneries in the South at this point. The plant covers an extensive acreage and gives employment to a large number, while the raw material, drawn from the surrounding country, is another source of money-making. Many of the large coal companies have their headquarters in Jellico, and around the city within a radius of two miles are some of the largest coal operations in the district. Jellico has all the facilities which go to mark a modern city of several times the population. Many buildings, both business and residence, are in course of construction, and there is not a vacant house in town.

The surrounding coal fields are reached by short railroad lines extending out from the city. The Birdseye Railroad, a seven-mile line entering rich coal territory in Whitley county, reaches several extensive operations.

The recent completion of the Clear Fork Railroad from this city up the Clear Fork valley along the Kentucky-Tennessee border has brought extensive undeveloped coal fields in touch with development. The line is 15 miles in extent and is operated jointly by the Louisville & Nashville and Southern, both of which enter this city.

Mr. F. F. Whitteakin, general manager of the Cumberland Railroad, stated this week that active construction work on the Jellico extension of this line had been started, and he hopes before long to see his trains running into this city. This line will open up vast coal fields in South-eastern Kentucky. The extension to this city will be about 17 miles in length from the Brush Creek valley.

The surrounding country is rich in oil indications, and a company is now being organized by local men to drill some wells in the Elk valley, a few miles from the city. Drilling was carried on there four years ago and two good strikes made.

COTTONSEED

Cotton Oil in Austria.

Between 1896 and 1905 the importations of American cottonseed oil at Trieste, Austria, more than doubled. The first six months of this year show a decline, which Deputy Consul Robert W. Heingartner of Trieste attributes in part to the tariff. He says that statistics for the cottonseed-oil trade of Trieste, which have just been published, show that during the first six months of the current year 72,056 barrels were imported, against 55,113 barrels for the same period in 1905. However, the new Austrian duty, which came into effect on March 1 of this year, put an abrupt stop to the ever-increasing importation of this article. While in February 30,694 barrels were imported, in March—under the new tariff—only 270 barrels entered, and in April, May and June only 530, 183 and 125 barrels, respectively, a total of only 1108 barrels, against 42,667 barrels during the same four months of 1905. Cottonseed oil pays, under the new Austrian tariff, a duty of 40 crowns (\$8.12) per quintal (220.46 pounds) gross. Under the old tariff the duty was only \$1.96 per quintal.

Mr. Heingartner quotes Mr. Giuseppe Levi, one of the largest oil brokers in Trieste, who urges importers to protest against the prohibitive tariff, as follows:

"On the 1st of March of this year the new duty on cottonseed oil came into effect. It is enough to compare the importations of this article from March to June of 1905 with those of the same period of this year to get an idea of how this increase of duty has damaged the oil trade of Trieste. This prohibitive duty is unreasonable, and the government which imposed it to protect the interests of the olive-oil producers of Austria was not justified in doing so. Thus the government sacrificed cottonseed oil—that excellent surrogate of olive oil—and at the same time, unlogical as it may seem, lowered the duty on olive oil, so that now foreign oils can compete with the Austrian product. The result is that now the Austrian producers must struggle to dispose of their oil, while the foreign product, which is of better quality, is sold in Austria in greater quantities than ever before."

Cottonseed at Memphis.

[Special Cor. Manufacturers' Record.]
Memphis, Tenn., August 25.

The cottonseed-products mills throughout the territory indicate that business will begin from one week to twenty days earlier than last year. In other words, new meal and hulls will be in the market before October, while last year scarcely a mill began operations before October 1, and many of them not until 10 days later. The inquiry from exporters is already assuming a lively tentative shape. The oil market is different, however. This market looks easy, with a prospective supply in excess of that for years. It is figured by some that prices will get low enough to justify the use of cotton oil in cheap products, such as soap or something to consume more of it than has been used in lard and table oils as heretofore.

Cottonseed-Oil Mill.

At a meeting of the stockholders of the People's Oil Mill & Fertilizer Co. of Aberdeen, Miss., incorporation of which, with a capital stock of \$100,000, was reported several months ago, formal organization was effected by the election of the following officers: President, Kirby Lann; vice-president, R. W. Eikner; secretary, J. P. Thompson; treasurer, W. H. Carlisle; general manager, J. J. Wright. The charter of the company was accepted and approval expressed of the site which has

been secured for the erection of the plant. Construction material is now being delivered, and a committee consisting of Messrs. Kirby Lann, J. W. Jordan and J. J. Wright was appointed to superintend building operations. It is understood that the capacity of the plant will be about 60 tons per day.

MINING

Leases Tennessee Coal Lands.

Messrs. H. C. Thompson of London, Ky., with associates, is reported to have closed a lease for 10 years with the Chicago-Tennessee Coal & Coke Co. at Waldensia, Tenn., for 2000 acres of coal lands, together with mines and mining plant, washer, railroad, engines and other equipment. A new company is being organized to operate under the name of the Waldensia Coal Co., and development work has already begun. It is understood that the washer will not be operated at present, but it is the purpose of the company to operate the coke ovens, 60 in number, as soon as possible. The coal is said to be of such quality as to make it valuable for domestic as well as shipping purposes.

Shipments of Lead and Zinc.

Lead and zinc shipments from the Joplin (Mo.) field from the first of the year to August 20 aggregated 32,375,760 pounds of zinc and 9,310,260 pounds of lead more than for the same period last year, the value of the products being \$1,199,038 greater. For the first eight months of the year the value of the products approximate \$10,000,000, indicating a probable value for the year of \$15,000,000 and an increase approximating \$2,000,000.

Mining Notes.

Reports from the coal fields of East Tennessee and Kentucky state that mine owners are receiving orders for coal as fast as it can be mined.

The Cincinnati Gas, Coke, Coal & Mining Co. is reported to have closed a contract to purchase the output of 10 coal mines in Pike county, Kentucky, for a period of 12 years.

Mr. William Warner has been appointed inspector for the seventh mining district of West Virginia, embracing mines in Mercer and McDowell counties, with headquarters at Welch.

For a Fertilizer Plant.

At a meeting of truckers and farmers of the Eastern Shore of Virginia at Eastville last week for the purpose of organizing a company to establish a plant for the manufacture of fertilizers, a resolution was offered and passed that organization be effected. It is stated that the capital stock of the company will be about \$150,000, and solicitors were appointed to procure subscriptions. A committee on organization was appointed as follows: Dr. Wilkins, chairman; Ben Thomas, L. J. Hyslop, Dr. J. W. Bowdoin, W. L. Nock, Frank Parsons, R. S. Trower, J. S. Bull, E. T. Powell, John T. Wilkins, Jr., and L. E. Mumford.

Messrs. E. T. Powell, A. J. McMath, R. L. Ailworth, R. V. Nottingham and C. W. Parsons were appointed a committee on location, and Messrs. S. K. Martin, O. F. Mears and G. R. Nottingham a committee on cost of the plant.

The Business Men's Association of South Boston, Va., has been organized with Messrs. T. B. Johnson, president; Joseph Stebbins and R. S. Barbour, vice-presidents; H. L. Edmonds, secretary and treasurer, and W. H. Sheperd, S. F. Gilliland, J. G. Patterson, T. F. De Jarnette, R. J. Tuck and Henry Easley, directors.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Memphis' Lumber Trade.

[Special Cor. Manufacturers' Record.]
Memphis, Tenn., August 25.

The lumber market presents features decidedly favorable to the seller now. Cottonwood and gum are in firm position, and are especially active in the lower grades, bringing better prices than in years. Plain oak, ash and cypress are active at stiff prices. Ash stocks are particularly broken, and are taken early from the saw. Quartered red oak is picking up a little, but is not in very strong demand yet. The foreign and domestic business are both good. The box trade is very satisfactory along heavy package lines. The cooperage business shows its strongest front on oil stock at this time, the bourbon cooperage business being a little out of season, though stocks still move there. The slack-stave trade has improved a trifle, and elm hoops prove good sellers.

El Paso a Lumber Center.

In a circular-letter addressed to the stockholders of the Greene Consolidated Copper Co., which company has secured a controlling interest in the Sierra Madre Land & Lumber Co., operating in Chihuahua and the northeastern part of the State of Sonora, Mexico, Col. W. C. Greene announces that El Paso, Texas, will be made the chief distributing point for the lumber production of the company. The Sierra Madre Land & Lumber Co. owns 2,215,000 acres of pine timber lands in the States referred to, and is installing sawmills to have a capacity of about 500,000 feet per 24 hours. A complete plant for the manufacture of flooring, siding, etc., is also being installed. It is estimated that the average stumpage of the property is from 7000 to 8000 feet per acre.

Extensive Timber Development.

Mr. John Hardy Purvis, president of the Farmers' Realty Co., 4 East Bryan street, Savannah, Ga., advises the MANUFACTURERS' RECORD that he has recently purchased 50,000 acres of timber lands in Southwest Georgia and has orders for the shipment of 300,000 cross-ties to Baltimore and Philadelphia. To facilitate development operations Mr. Purvis contemplates the construction of 35 or 40 miles of tramway to connect his property with three seaboard railroads. He will also use the tramway for the transportation of passengers and as the land is cleared of its timber locate settlers on it as farmers and laborers. Mr. Purvis desires to correspond with manufacturers of such equipment as he will need in his operations.

For Panama Canal.

General Purchasing Officer D. W. Ross will receive sealed proposals at the office of the Isthmian Canal Commission, Washington, D. C., until September 8 for furnishing 8,510,000 feet of lumber for use on the Isthmus of Panama. Blanks and full information (Circular No. 325) may be obtained from the office of the Isthmian Canal Commission or the offices of the assistant purchasing agents, 24 State street, New York city; custom-house, New Orleans, La.; also from chief quartermaster, Department of the Lakes, Chicago; depot quartermaster, St. Louis; depot quartermaster, Jeffersonville, Ind.; chief quartermaster, Department of the Gulf, Atlanta, Ga., and the Commercial Club, Mobile, Ala.

Timber Properties Purchased.

The Fourche River Lumber Co. of Fourche, Ark., is reported to have closed

negotiations for the purchase of about 24,000 acres of timber lands in Perry and Pulaski counties. The land was purchased from the Lindsay Land & Lumber Co. of Iowa at a consideration which is stated to be \$261,944.92. The property involved consists of about 12,000 acres located in Maumelle, Roland and Owen townships, Pulaski county, and the same number of acres in the eastern part of Perry county. The Fourche River Lumber Co. has a large plant in operation at Fourche, and is at present constructing a railroad about 40 miles long to touch extensive tracts of its undeveloped timber lands.

A Saw and Planing Mill.

The Royal Lumber Co. of Royal, La., which has recently organized with a capital stock of \$150,000, will erect a saw and planing mill plant to have a capacity of 40,000 feet per day. The main structure will be of wood, 70x210 feet. The company desires to purchase a 35-horse-power engine, boiler and sawmill equipment. Dr. D. E. James is the managing officer.

Wants 100,000 Handles and Beams.

The Atlanta Plow Works of Atlanta, Ga., announces it is in the market for 75,000 to 100,000 plow handles and beams.

Lumber Notes.

The Tennessee-Alabama Retail Lumber Dealers' Association met at Knoxville, Tenn., last week.

The British steamer Cynthian cleared from Pensacola, Fla., last week with a cargo of 2,325,000 feet of lumber for Antwerp.

It is announced that F. E. Howard Newcomb of Lake Charles, La., will close negotiations for the purchase of a sawmill plant at Hyatt, Texas, and a large tract of yellow-pine timber in East Texas, upon both of which he has an option.

Concrete Machinery Manufacturers.

The National Concrete Machinery Manufacturers' Association is the new name of the Concrete Block Machine Manufacturers' Association, with Messrs. J. F. Angell, president; O. U. Miracle, vice-president; S. L. Wiltse, secretary, and Mentor Weinstein, treasurer. The association has decided to join the National Fire Preventative Association for the purpose of pushing the insurance question, and has appointed Messrs. S. L. Wiltse, J. F. Angell, A. T. Bradley, F. L. Dykema and R. Pulfer a fire insurance committee. The association has decided that its members will no longer tolerate sending their concrete machinery out on trial, and has appointed a committee to revise the concrete block machine manufacturers' specifications for concrete blocks so as to include brick, and to see that said specifications are circularized to all important cities and towns of the United States.

Seaboard Pipe Foundry Co.

The MANUFACTURERS' RECORD has been advised regarding the plans of the Seaboard Pipe Foundry Co., incorporated at Savannah, Ga., some days ago. The new company has purchased the plant of the Atlantic Manufacturing Co., and expects to begin operations in the course of the next two or three weeks, the daily output to be 10 tons of soil pipe. This capacity is expected to be increased to 20 tons in the near future. Messrs. E. F. Hartfelder, president of the Hartfelder-Garbutt Company; George A. Garbutt, secretary-treasurer of the same company, and a number of others incorporated the Seaboard Pipe Foundry Co., with a capital stock of \$200,000. They will elect officers soon.

Frank G. Smith has, it is reported, taken steps to establish an automobile service between Columbia and Mt. Pleasant, Tenn.

MECHANICAL

A New Air Compressor.

A new type of Sullivan air compressor is illustrated by two accompanying engravings. This compressor is particularly suited to the requirements of industrial service, in railway and machine shops, foundries, large buildings, as well as to the general purposes of contracting, mining and quarrying work.

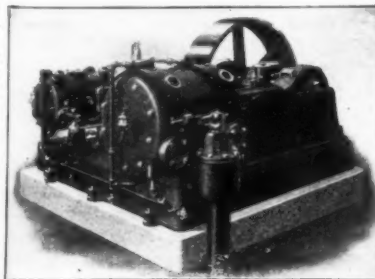
It is of the duplex pattern, and is built in several combinations of steam and air cylinders, also for belt and power drive. The dominant feature of these various types is the box frame, with housing, which forms a tight enclosure about the crank discs, main bearings, eccentrics, connecting rods and crossheads. This housing excludes dust and dirt and permits the use of a system of self-lubrication of the principal working parts.

As shown in the sectional view, an oil well is provided in each frame, in which the lower edges of the crank discs are immersed. The oil clinging to the discs is removed by scrapers in contact with their upper edges, and thence conveyed by means of a storage chamber and suitable pipes to the main journals, crankpins, eccentrics and crosshead guides, being finally returned to the well by gravity, to be used again. These machines require the minimum of attention and care, as it is necessary to add oil to the wells only at long intervals.

These compressors are very compactly and substantially built. All sizes except those of largest capacity are mounted on a heavy subbase, in which the intercooler and steam reheater (on cross-compound machines) are situated. The frames are of the heavy-duty type or tange pattern, with long bearings on the base, securing rigidity and maintenance of correct alignment of working parts. The steam-valve

of copper, with whose cold surfaces the air is forced to come into intimate contact in passing from the low to the high-pressure cylinder.

The inlet valves on all air cylinders are of the semi-rotary or Corliss type, and are moved by steel valve stems connected by adjustable connecting rods to independent eccentrics on the engine shaft. The moving parts start from and arrive at the ends of their travel with a slow and easy motion, but at the points of opening and closing of the valves these parts attain their greatest speed. It is thus possible for the valves to remain open during the



A NEW AIR COMPRESSOR.

entire stroke, allowing the cylinder to fill with air at barometric pressure, and trapping it instantly before the piston begins its return.

The valves themselves are made of close-grained semi-steel of large diameter, fitted with accuracy. Provision is made to permit a thin film of air to get behind the closed valve, pressing the cutting edges to the seat and making the valve tight against leakage. The valve stems have T-shaped heads on their inner ends, carefully planed and fitted to the slots in the ends of the valves. The attachment is such that the valves are free to follow up wear automatically without hindrance from the

thereby reducing clearance to the smallest amount possible. These valves are of the poppet type, internally guided on cast-iron plugs and held to their seats by light steel springs. They are seated in bronze cages, readily removable by unscrewing the valve plug. As shown by the sectional view, they are completely surrounded by water jackets, in order to reduce the temperature of the air at its terminal pressure.

All working parts are constructed of materials which experience has shown to be best suited for their respective purposes, and all parts of the machines are readily accessible for inspection or repair.

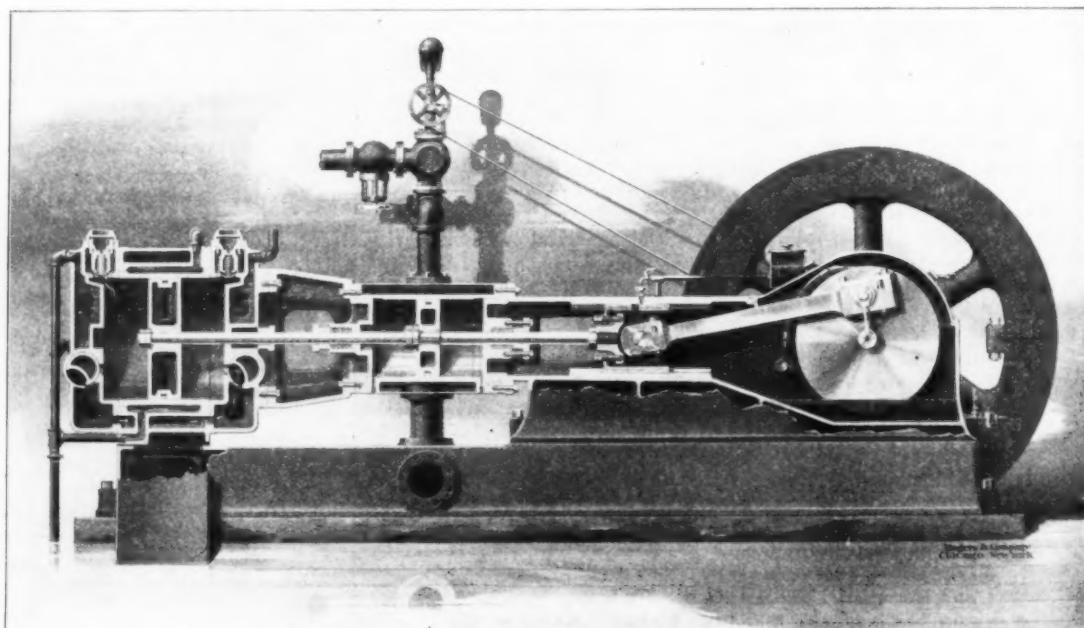
These air compressors are built in capacities ranging from 100 to 2600 cubic feet of free air per minute. The maker, the Sullivan Machinery Co. of Chicago, states that it has erected large additions to the works at Claremont, N. H., for the proper manufacture of this type of compressor.

The Tantalum Incandescent Lamp.

Improved forms of incandescent lamps are steadily being introduced to dealers and users, and possibly the latest innovation in this direction is the tantalum lamp, of which an illustration may be seen herewith. This lamp is stated to have attained the highest commercial efficiency known. It is used on direct current only, and is not adapted to withstand street-railroad work or heavy vibrations of any kind. The manufacturer says:

"The tantalum lamp is an incandescent electric lamp with a filament burning in a vacuum, and differs from the standard incandescent lamp only in the fact that the filament consists of the metal tantalum instead of carbon.

"It is a high-efficiency lamp. The initial amount of current is from 1.5 to 1.7 watts per Heffner candle-power or 1.8 watts per our present candle-power. It is at present made only for voltages of from



A NEW AIR COMPRESSOR.

gear is controlled by a Meyer adjustable cut-off, the throttle being regulated by a sensitive steam and air governor.

The air cylinders are not cored out, but instead separate liners are forced into the castings, thus precluding shrinkage strains. The space between the liner and the cylinder forms the water jacket, and outside of this again is the air-inlet passage. Incoming air is thus admitted to the cylinder without contact with heater walls.

The air-cylinder heads are also water-jacketed, and in two-stage compressors an efficient intercooler is provided, consisting of a nest of cold-water tubes made

stems. These valves may be removed through the back bonnets without disturbing the setting of the valve gear. This valve gear is simple, strong and durable, is positive and reliable in action and insures high volumetric efficiency.

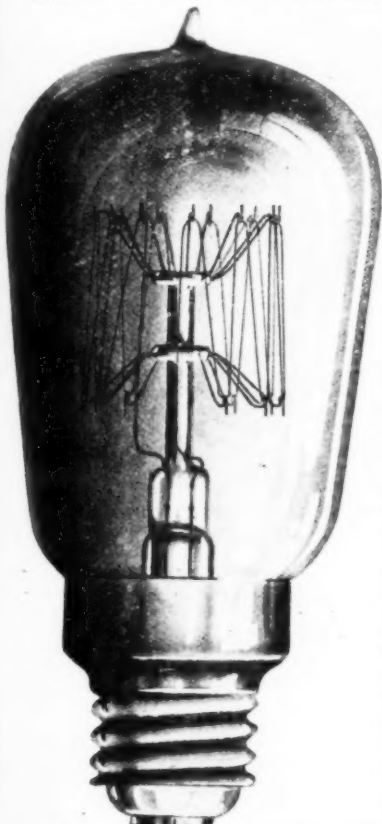
The discharge valves are placed radially on top of the cylinder-head castings. They are set with removable seats in shallow ports or pockets, as shown in the sectional view of the class WE machine referred to above, at a sufficient distance from the ends of the cylinder so that the piston travels completely past the openings to these pockets at each end of the stroke,

100 to 130, giving an approximate candle-power of 22. The current consumption of this type averages about .35 ampere. The above figures relating to candle-power and watts are for lamps with clear globes. Lamps with frosted globes give approximately 15 per cent. less candle-power, and the watts consumed per candle-power are approximately 14 per cent. higher.

"Tantalum lamps should, whenever possible, be burned in parallel. They can, however, be burned in series across circuits up to 250 volts. In all cases where it is desired to burn tantalum lamps in series this should be stated when buying,

so that lamps may be selected to take the same amount of current. Tantalum lamps are made for voltages from 100 to 130 volts, and are at present made only in the bell-shape type shown by the full-size illustration. The dimensions of this bulb are not larger than those of the standard incandescent lamp for 25-candle 110-volt. Tantalum lamps are furnished with clear or frosted globes to order. Tantalum lamps will be provided only with Edison screw base, although T.-H. or Westinghouse adapters will be furnished.

"The tantalum lamp has an average useful life to 80 per cent. of the initial candle-power of approximately 500 or 600 hours. Its total life is, however, greater, and even reaches as high as 1000 hours on direct current only. The life on alternating current is very much shorter, following some inverse law as to the periodicity.



THE TANTALUM INCANDESCENT LAMP.

As an example, the life on 25 cycles would be very much longer than the life on 60 cycles, etc.

"The tantalum lamp takes but one-half the current of the ordinary incandescent lamp of similar voltage and candle-power. With the same current a tantalum lamp gives twice as much light as an ordinary carbon-filament lamp.

"Tantalum lamps give a much whiter light than the carbon-filament lamp. Tantalum lamps give their full candle-power immediately upon the current being turned on. Tantalum lamps can be burned in all positions, vertically (downwards or upwards), horizontally or at an angle. Tantalum lamps can be run in parallel on regular 100 or 130-volt circuits similar to carbon-filament lamps. The tantalum lamp is manufactured by the Buckeye Electric Co. of Cleveland, Ohio.

H. B. Smith Tenoning Machine.

Two accompanying half-tone engravings will attract the attention of progressive buyers of machinery for woodworking. They represent a single-end tenoning machine which is made in several modifications to meet the various requirements to which such machines are applied. Fig. 1 is a rear-end view showing carriage, copes, cope countershaft and application of cut-off saw. Fig. 2 is a three-quarter view

showing driving pulleys, cutter spindles and heads, wrenches, etc.

This tenoner is the result of nearly 60 years' experience in the manufacture and construction of thousands of machines of its class. It is especially adapted for tenoning door, sash and blind work, for use in the cabinet department of car shops and for all general cabinet and joinery framing.

The framing is of iron, massive and pedestal in form, cast whole and with base wide enough (30x34) to firmly support all projecting parts, the extension for supporting the table being curved from the operator so as to admit of following the work through the cutters. A chute is cast

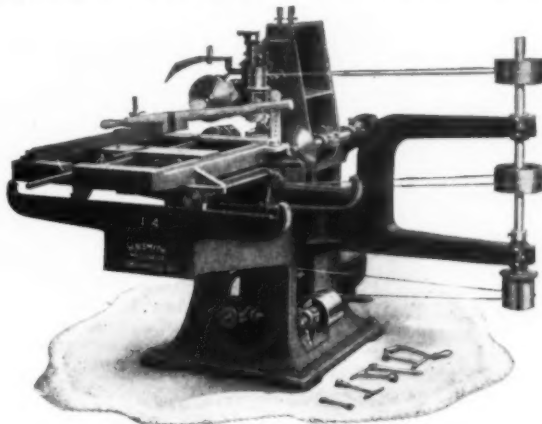


FIG. 1.—H. B. SMITH TENONING MACHINE.

within the frame for directing the shavings to the outside.

The table is a radical improvement. The principal improvement is, of course, the roller bearing, which is constructed on principles thoroughly tested on some of the company's other products. The table must always move square across the ways, because the rollers are connected together and kept square or parallel by a guiding or riding frame. Therefore, if the rolls move at one end, they must also move at the other, and hence the whole carriage must move, no matter where you take hold of it or how much weight is put upon it. For instance, a man can sit on the table and the operator could take hold of the

on the ways, so that the table cannot lift up when operating.

The ways are substantial, and provision is made for supporting the table firmly in all practical positions. The table is, of course, provided with the usual clamp for holding the material, and also with a gaugebar of usual dimensions.

The headstocks are substantial and are adjustably gibbed to the upright framing. They are movable up and down by two screws, so arranged that they may be moved in either direction, both at one time or separately, as desired, thus perfectly controlling the size and position of the tenon. The upper headstock, with its spindle, has a horizontal or longitudinal

adjustment for regulating the position of the shoulders of the tenon.

The cutter spindles are all made of high carbon steel, turned and ground accurately to size and to perfect roundness, those for the heads being one and one-half inches in the bearings and where heads go. The cope spindles are one and one-eighth inches in the bearings and where heads go. The saw arbor (when furnished) is one and one-quarter inches straight, and the vertical cope countershaft is one and three-eighths inches straight. The driving shaft in the base, which carries the tight, loose and driving pulleys, is of one-and-one-half-inch special quality drawn steel.

The bearings are all compensating and

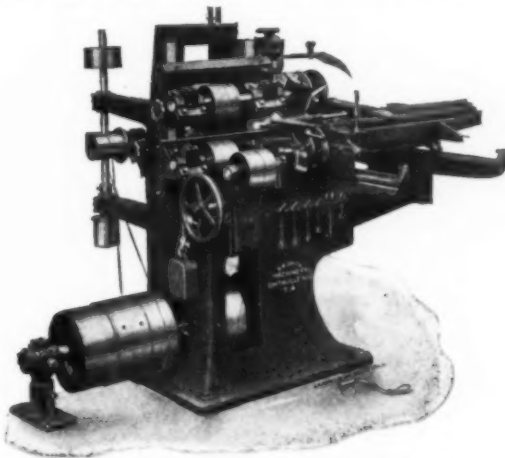


FIG. 2.—H. B. SMITH TENONING MACHINE.

outer end of the gaugebar, and with two fingers move the table in either direction perfectly square the entire length of the ways. The rolls next to the cutter heads are grooved to prevent end motion, and all are protected perfectly from shavings, likewise provided with leather scrapers for removing any accumulating dust. The table is of ample size, quite heavy, so that it cannot spring when clamping the work on, and has a traverse movement of 33 inches, the roller bearing moving only slightly more than one-half that distance. The end of the table or carriage next to the cutters is provided with a covering that extends below and adjusts to a projection

self-lubricating, and lined with best babbit metal. Those for the tenon-head spindles are six inches long next to the heads and five inches long on the outer ends. Those for the cope spindles are also provided with brass steps, and those of the driving shaft are adjustable for alignment, and include an outside hanger. The belt compensating tightener of the spindles is also self-adjusting to all positions of the belt.

The copes are attached to the main headstocks, and, of course, adjust with them, but have both vertical and lateral adjustments independent of the headstock movements, these independent adjust-

ments being controlled by suitable screws with hand wheels, and the spindles are driven by a vertical countershaft with longer belts than usual on such machines.

The tenon heads may be used double or single, and have seven and one-half inches cutting circle. When machine is fitted with double heads it will cut tenons as long as six inches; when fitted with single heads it will cut tenons only three and one-half inches long. The upper and lower heads expand or separate to take in stock as thick as five inches, and the table movement will admit to cut tenons on stock as wide as 20x1 inches thick. By passing material through twice tenons may be cut as long as eight inches. The knives are placed on the heads so as to make a smooth drawing cut, and are readily ground to the required shape. Improved spurs are used to cut the shoulders square and rarely require attention.

A cut-off saw may be applied in the rear as shown, and is adjustable while running for regulating the lengths of tenons. (Cut-off saw in front made only to order.)

Equipment supplied includes cutter heads and the usual cutters, the necessary wrenches on improved rack, countershaft with tight and loose pulleys, and idle pulley leading to cope countershaft. This machine is manufactured by the H. B. Smith Machine Co. of Smithville, N. J.

Atlantic Compress Co.'s Plans.

It is announced that the Atlantic Compress Co. has received plans for the construction of its proposed compressing and warehousing facilities at Macon, Ga., for which about \$250,000 will be expended. The Macon plant will include two cotton compresses with a daily capacity of 1200 bales, each having a shed to hold 5000 bales of cotton, and 20 warehouses, to be 1200 feet long, of 1000 bales capacity each. The buildings will be 570 feet wide. Double railway tracks will separate the compresses from the warehouses on either side, and these buildings will be flanked by tracks. It is the intention to begin construction work at once and endeavor to have one of the compresses and several of the warehouses ready for use by November 30, in order to handle the cotton crop of the present season. The entire plant will be practically fireproof. It has been designed after a study of the latest methods of construction followed in building such plants in the leading cotton-handling cities of the South. It is claimed the facilities for storage and for a low rate of insurance will not be surpassed by any other cotton-compressing and storing establishment in the Southern States. The plant will have connections with the Southern Railway, the Macon, Dublin & Savannah Railway and the Central of Georgia Railway. The MANUFACTURERS' RECORD referred in July to the extensive plans of the Atlantic Compress Co. Its statements included that \$900,000 is to be expended for the various betterments planned for compressing and warehousing facilities at Macon, Atlanta and Savannah, Ga., and Montgomery, Ala. At Macon the plants of the Union Johnson Warehouse Co. and English, Johnson & Co. are to be taken over for \$105,000 and combined and enlarged as above outlined. At Columbus \$100,000 is to be expended. At Montgomery the plants of the Montgomery Compress Co. and the Mutual Compress Co. are to be taken over and enlarged at a cost of \$160,000. A plant is also to be provided at Augusta, Ga. The Atlantic Compress Co. held a meeting on June 26 to consider these improvements and to vote on increasing capital stock from \$75,000 to \$300,000 and to issue bonds for \$700,000. Its offices are in the Candler Building, Atlanta, Ga., and C. C. Hanson is president.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Birmingham, Ala. — Coal Mines. — Incorporated: Big Four Coal Co., capital stock \$10,000, by R. D. Taylor, M. O. Ellis and J. H. Hann.

Birmingham, Ala. — Land Improvements. — Incorporated: Standard Realty Co., with capital of \$12,000, by D. W. Vaughan and others.

Centre, Ala. — Cotton Mill. — Tatum & Smith are interested in plans for establishing a cotton-thread and duck mill to work up two or three bales of cotton every day. No machinery has been purchased.*

Gadsden, Ala. — Electric-power Plant. — Alabama City, Gadsden & Attalla Railway Co. has awarded contract to Otto T. Fisher of Birmingham, Ala., for the erection of the steel buildings for its proposed \$125,000 electric-power house previously reported; structure to be of steel and entirely fireproof; two stories high, 50x100 feet; first floor to contain the pumps and storage apparatus; second floor to contain driving machinery; flooring of concrete reinforced with steel; plant to be driven by turbine engines of 2000 horse-power; water to be filtered before entering boilers. Company has also awarded contract to Mr. Fisher for erection of car barn.

Gadsden, Ala. — Ice Plant. — Reported that Alabama, Gadsden & Attalla Street Railway Co. will double the capacity of its 20-ton ice plant and add a cold-storage department.

Gadsden, Ala. — Iron and Steel Works. — The Southern Steel Co. will increase its capital stock from \$15,000,000 to an amount understood to be \$25,000,000. Of this increase it is reported that \$1,000,000 will be preferred stock and \$5,000,000 common stock. This increase is made for the purpose of absorbing into the Southern Steel Co. the properties of the Lacey-Buek Iron Co. and the Chattanooga Iron & Coal Co. The Lacey-Buek Company owns at Trussville, Ala., an iron furnace and 300 coke ovens and coal and iron properties at other points, while the Chattanooga Coal & Iron Co. owns furnace located

at Chattanooga, coal and ore mines and coke ovens. The combination thus effected will have outstanding about \$1,100,000 of bonds and, it is understood, \$10,000,000 of preferred stock and \$15,000,000 of common. The Southern Steel Co. now operates a large furnace at Gadsden and a large steel plant at the same point, and also steel-mill and wire mills at Ensley. As previously reported in the Manufacturers' Record, the steel plant at Gadsden is being very greatly enlarged.

Gadsden, Ala. — Shops and Barn. — Alabama City, Gadsden & Attalla Railway Co. has let contract to Otto E. Fisher of Birmingham, Ala., for erection of car barn of steel, entirely fireproof, 50x125 feet; part of building to be used as a machine shop for repairing street-railway cars.

Hartford, Ala. — Sash Factory. — Charles Roehlig and associates are forming stock company to establish plant for manufacturing sash by a new patent.*

Mobile, Ala. — Ice Plant. — Stonewall Ice Co., H. W. French, president, is reported to have awarded contracts for erection of proposed ice plant, the capacity to be either 50 or 100 tons daily.

Mobile, Ala. — Steamboat Lines. — Incorporated: Mobile & Gulf Steamboat Co., by H. B. Slaughter, J. G. R. Graham and E. P. Rickerbay. It has a capital stock of \$100,000, and is to operate boats in Mobile river and Mobile bay, etc.

Mobile, Ala. — Lumber Plant. — American Lumber Co., reported last week as awarding contracts to rebuild lumber mill recently burned, will have a 250x40-foot frame structure equipped for manufacturing from 75,000 to 100,000 feet of lumber daily. Plant will cost about \$50,000.

Montgomery, Ala. — Sewerage Contract. — Black, Laird & Co. of New Orleans, La., who have contracts amounting to approximately \$20,000 for sewerage, are preparing to begin their work. They will begin dredging with a machine having a capacity of 500 yards per day.

Montgomery, Ala. — Sidewalk Paving. — The city council has approved 17 ordinances authorizing the issuance of bonds to the extent of \$29,100 for sidewalk paving. Address The Mayor.

Montgomery, Ala. — Lumber Plant. — Marbury & Speers Lumber Co. has been incorporated with capital stock of \$50,000 by D. H. Marbury, E. V. Speers and Mrs. Kate Marbury, all of Marbury, Ala.

Selma, Ala. — Ice Plant. — International Cottonseed Oil Co. has completed its ice plant at a cost of \$45,000 and will probably buy boilers. Ernest Lamar is manager.*

Talladega County, Ala. — Ore and Iron Company. — The Alabama Ore & Iron Co. has been organized under the laws of New York with a capital stock of \$100,000 preferred and \$400,000 common and has acquired the iron-ore properties in Talladega county reported some months ago in the Manufacturers' Record as having been purchased by Mr. Douglas H. Gordon, president of the International Trust Co. of Baltimore. Mr. Gordon and associates have organized the Alabama Ore & Iron Co., to which this property has been deeded. It has not been decided as to whether there will be any early development of mining or whether the property will for the present be held as an investment.

Uniontown, Ala. — Street Paving. — The city has plans and will contract for the construction of street paving and accompanying improvements in way of terra-cotta piping, etc. S. E. Washburn of Montgomery, Ala., is the engineer in charge of plans and specifications. Bids will be opened September 10.*

Woodlawn, Ala. — Sewerage System. — City has awarded contract at \$30,000 to Sullivan & Long for construction of proposed sewerage system.

ARKANSAS.

Argenta, Ark. — Brewery. — E. P. Fairbanks of Terre Haute, Ind., states there is no truth in the reports that he is interested in the proposed brewery referred to last week.

Argenta, Ark. — Sewer Construction. — The city is contemplating the construction of a combined storm and sanitary sewer to cost about \$35,000. R. E. Stallings is commissioner of public works.

Des Arc, Ark. — Ice Plant. — Emmet Vaughan and associates will install 10-ton ice plant for next season; machinery not purchased.*

Fayetteville, Ark. — Street Paving, etc. — The city is completing arrangements to form an improvement district for the purpose of paving

two miles of streets, and expects to install a sewerage system in the near future. It is also negotiating for the purchase of the local water-works. C. A. Mulholland is mayor.

Fayetteville, Ark. — Street Paving. — The city is endeavoring to arrange for the paving of two miles of city streets with vitrified brick. It is also laying plans for proposed sewerage system. C. A. Mulholland is mayor.

Forrest City, Ark. — Cotton Compress. — Incorporated: Merchants & Planters' Compress Co., capital stock \$35,000, by George R. Pettus, J. D. Baugh, J. H. Tipton, E. A. Rolfe, J. J. Hughes, Eugene Williams and John W. Naylor.

Fort Smith, Ark. — Brick Plant. — M. C. Burke, who secured paving contract recently, is about to begin the preliminary arrangements for the work. He will erect a \$100,000 brick plant, which will be permanent.

Helbig, Ark. — Logging. — Incorporated: Pike County Logging Co., capital stock \$40,000, by A. E. Culbreath, Guy Brewer, J. W. Holt, H. F. Richardson, F. Potter, J. A. Holt and C. S. McCall.

Humphrey, Ark. — Lumber Manufacturing. — Incorporated: Staab Lumber & Manufacturing Co., capital stock \$50,000, by Peter Staab, B. F. Gough, Charles H. Odell and Arnold Kleimer.

Little Rock, Ark. — Industrial. — Incorporated: Little Rock Industrial Co., capitalized at \$150,750, by W. S. Tinsman, H. W. Morrison, R. W. Polk, J. T. McCarthy, Abe Stiel and E. B. Peirce.

Morrilton, Ark. — Water-works. — Morrilton Water-Works Co., recently reported incorporated with \$50,000 capital stock, has organized with J. T. Hannaford, J. B. O'Neal and others as directors.

Ozan, Ark. — Cotton Gin. — J. S. Conway will build cotton gin—four 70-saw gins; also reported as contemplating the construction of water-works.

Paragould, Ark. — Water-works and Sewers. — The city is reported as contemplating the construction of a new water-works to replace present plant, which is becoming inadequate to supply the municipality; also as to build sewers. The establishment of electric plant is also talked of. Address The Mayor.

Pulaski, Ark. — Bakery. — Incorporated: Pulaski Baking Co., by Frank D. Haley, A. F. Reinhardt and John F. Renfro.

Sulphur Rock, Ark. — Telephone System. — A company is being organized to establish telephone system; Sam Tuggle, president; W. R. Rice, treasurer, and J. C. Gill, manager.

Walnut Ridge, Ark. — Lumber Plant. — National Lumber & Manufacturing Co. has purchased and will improve the J. J. Moore plant for manufacturing vehicle and car materials. Will erect factory building 40x80 feet and sheds.

DISTRICT OF COLUMBIA.

Washington, D. C. — Garage and Repair Shop. — Appleton P. Clark, Jr., architect, 605 F street N. W., is preparing plans and specifications to remodel structures at 1313 and 1315 New York avenue into garage and repair shops for the Chris. Heinrich estate.

FLORIDA.

Green Cove Springs, Fla. — Electric-light and Water Works, etc. — The town is reported as preparing for the construction of water-works, electric-light plant and sewer system. Address Town Clerk.

Jacksonville, Fla. — Street Paving. — The city is preparing to advertise for proposals on extensive street paving improvements recently decided on. Brick and macadam work is involved. Address The Mayor.

Key West, Fla. — Water-works, Street Paving, etc. — The city contemplates arranging for the construction of water-works, the paving of streets and other municipal improvements. Applications for franchises will be considered. George L. Babcock is mayor.

Lake City, Fla. — Cotton Ginnery. — Lake City Ginning Co. is the title of company formed by J. W. Hatcher and associates, mentioned last week. Its cotton ginnery will handle Sea Island staple, daily capacity to be 35 bales. Machinery has been purchased.

Leesburg, Fla. — Canal Contract. — Roland Woodward of Jacksonville, Fla., has received contract for canal construction.

Miami, Fla. — Electric Plant. — Florida East Coast Electric Light & Water Co., J. N. Mac-

gonigle, superintendent, will enlarge its electric-lighting and power plant, probably doubling the present capacity and requiring considerable new machinery, including 200-kilowatt generator, additional boilers, wiring, poles, etc.

Miami, Fla. — Gas Plant. — Miami Gas Co. is reported as preparing to build the gas plant for which franchise was obtained recently. It is stated that four miles of piping has been purchased. W. W. Prout is managing officer.

Orlando, Fla. — Fruit Packery. — A. J. Nye & Co. have begun the erection of fruit packery; building to be 75x105 feet and be equipped with improved appliances.

Pensacola, Fla. — Sewerage System. — The city has ordered R. C. Storrie & Co. of New Orleans, La., to begin work September 1 on their contract for constructing sewerage system, for which contract was recently awarded at about \$300,000.

Port Tampa City, Fla. — Boulevard. — City is reported as to call an election to vote on issuing \$15,000 bonds for construction of boulevard. Address The Mayor.

Webster, Fla. — Guano Factory. — Recent report that Kimbrough Supply Co. will build guano factory was an error. (See under Building Notes.)

GEORGIA.

Arlington, Ga. — Electric-light and Water Works. — The town has voted an issuance of bonds to the amount of \$25,000 for water-works and electric-light plant. Address The Town Clerk.

Atlanta, Ga. — Engineering, etc. — W. Woods White, T. B. Devant and Owens Johnson have incorporated the Southern Engineering & Machine Co. with authorized capital stock of \$100,000.

Atlanta, Ga. — Abattoir. — W. H. White, Jr., J. J. McLendon, R. L. Walker, S. C. Wilkerson and others are planning the organization of a stock company, to be capitalized at \$100,000, for the purpose of building a modern abattoir.

Atlanta, Ga. — Electrical Machinery Works. — The Current Motor Co. will be organized with capital stock of \$1,000,000 for the purpose of building a new device for the propulsion of dynamos, the invention of John H. Tolman of 358 Hill street. Messrs. Ware & Harper are said to have the organization of the company in charge.

Atlanta, Ga. — Candy Manufactory. — James H. Nunnally has purchased for \$22,500 site upon which to erect an addition to his present candy factory.

Atlanta, Ga. — Paper Mill. — Incorporated: Southern Cotton Stalk & Paper Co. with capital stock of \$100,000 to manufacture paper from the cotton stalk; incorporators, W. H. Croll of Pine Mountain, Ga.; C. M. Croll of Cutler county, Ohio, and Malvern Hill of Atlanta. Mr. Croll has been mentioned previously by the Manufacturers' Record in connection with plans for utilizing the cotton stalk in the manufacture of paper.

Atlanta, Ga. — Metals and Hardware. — Incorporated: United States Metal Co. with capital stock of \$50,000 by John J. Gannon, J. W. Moss and Malvern Hill.

Canton, Ga. — Woodworking Plant. — Ben F. Perry is interested in plans for establishing a plant for the manufacture of excelsior, boxes and laths.*

Cedartown, Ga. — Electric-light Plant. — Regarding the proposed electric-light plant mentioned last week, the water and light department, H. N. Van Devander, managing officer, is in charge. W. D. Ivey is engineer in charge. All necessary machinery and supplies have been purchased.

Fitzgerald, Ga. — Cotton Compress. — The Atlanta, Birmingham & Atlantic Railroad Co. cotton compress has been sold to parties who will reorganize as the Fitzgerald Compress & Warehouse Co., with C. C. Hanson of Atlanta, president, and E. E. Bailey of Fitzgerald, superintendent.

Lagrange, Ga. — Paving Improvements. — City has awarded contract to Southern Paving & Construction Co. of Chattanooga, Tenn., for 15,000 yards of vitrified-brick paving at \$1.75; also let contract to Southern Tile & Stone Co. of Atlanta, Ga., for 1200 yards of tilework at \$1.17½; all work to be completed in 60 days.

Lake Park, Ga. — Cotton Ginnery. — Ewell Brown, C. J. Barton and J. K. White have incorporated Lake Park Manufacturing Co. with a capital stock of \$5000 to establish cotton ginnery, etc.

Macon, Ga.—Cotton Compresses and Warehouses.—It is stated that the Atlantic Compress Co. has received plans for the construction and equipment of its proposed cotton compresses and warehouses, to comprise a complete system for handling cotton, and cost \$250,000. The plans call for the erection of two compresses with a daily capacity of 1200 bales and 20 warehouses of 1000 bales capacity each, besides a series of sheds. Double railway trackage is to separate the compresses from the warehouses on either side, and these will be flanked by tracks. The company will operate its own switching engine and cars. The Atlantic Compress Co. was referred to July 19 and 5 and previously in connection with extensive plans for compresses and warehouses. It was reported as to expend a total of \$300,000 for improvements at Macon, Atlanta, Columbus and Montgomery, and details were stated; C. C. Hanson, president, offices in Candler Building, Atlanta, Ga. J. R. Fordice of Atlanta is the company's engineer.

Reynolds, Ga.—Fertilizer-mixing Plant.—Nelsner & Newsom expect to install a small fertilizer-mixing plant.

Savannah, Ga.—Timber-land Development.—John Hardy Purvis, 4 East Bryan street, has recently purchased 50,000 acres of timber land in Southwest Georgia and will develop the property, his first contract calling for 300,000 cross-ties, equipment for cutting which will be purchased. Mr. Purvis intends to build a tram railway from 35 to 40 miles long for connecting with main line of three railways to remove his timber and for passenger service. He is prepared to correspond relative to plans, construction work, rolling stock, etc.*

Savannah, Ga.—Pipe Foundry.—Seaboard Pipe Foundry Co., recently reported incorporated with capital stock of \$200,000, will organize to take over and operate the plant of the Atlantic Manufacturing Co., which has been purchased. It is contemplated to increase in the near future the present capacity of 10 tons of soil pipe per day to 20 tons. E. F. Hartfelder and associates, incorporators of the new company, will soon effect organization.

Savannah, Ga.—Railway Machine Shops, etc.—It is stated that the Seaboard Air Line Railway is rapidly completing the extensive improvements which it has had in course of construction for some months, in accordance with the plans announced previously. The company is expending about \$100,000 on this work. Its warehouse on Hutchinson Island will be used for general storage purposes, and the car-repair shops will cost about \$30,000. It has not been contracted for, but contract has been let to Fred A. von Eberstein for driving 1000 piles for the foundation, and this work is in progress. The electric-lighting plant being installed on Hutchinson Island will cost about \$40,000. All the betterments are mainly in the interest of the better handling of cotton. C. C. Martin is general agent of the company. New York offices are at 32 Liberty street.

KENTUCKY.

Hickman, Ky.—Grain Elevator.—Ed Prother and others have organized the Hickman Grain Co. to build grain elevator.

Hindman, Ky.—Printing Plant.—Knott County Printing Co. has been organized with capital of \$5000 for a general printing and publishing business. E. P. Blair is president.

Hindman, Ky.—Electric-light Plant.—R. Bates and others will construct and maintain an electric-light plant, expending \$15,000.

Lagrange, Ky.—Land Improvements.—Royal Magnesium Carbonating Co. of Louisville, Ky., is reported as to expend \$50,000 for the improvement of 125 acres of land near Lagrange. It proposes to construct a dam for water supply, build dwellings, erect hotel, establish bottling plant, etc.; J. W. Yager, banker, of Louisville, managing officer.

Louisville, Ky.—Land Improvement.—Incorporated: Security Realty Co., capital stock \$57,100, by Embury L. Swearingen, W. M. Bullitt and R. W. Delph.

Louisville, Ky.—Flour Mill.—Louisa Milling Co. will make general repairs to flour mill and new machinery will be purchased, including 60 to 100-horse-power gas engine.

Louisville, Ky.—Coal Mines.—East Kentucky Coal Co., A. D. W. Smith, president, Wilkes-Barre, Pa., has purchased and will further develop the properties of the Muddy Branch Coal Co. New machinery will be installed, new tunnels erected and the output of the mines largely increased.

Louisville, Ky.—Electric Plant.—Kentucky Electric Co. has been incorporated with capital stock of \$500,000 by Lawrence Jones, Sanders P. Jones and Donald McDonald to build and operate an electric plant for supplying electricity for lighting and power purposes.

The establishment of a plant to supply steam for heating and power is also contemplated. Lawrence Jones was mentioned last week as having a municipal franchise for \$100,150.

Louisville, Ky.—Contractors.—John J. Bartman and Charles F. Bartman have incorporated Charles Bartman & Sons with a capital stock of \$2400 to do contracting and building.

Whitesburg, Ky.—Telephone System.—Whitesburg Telephone Co. will extend its line from Whitesburg via Mayking and Pound Gap to Pound, Va., after increasing its capital stock to \$9000.

LOUISIANA.

Abbeville, La.—Distillery.—Frank Walker, consulting engineer, is interested in plans for equipping a distillery. No machinery has been purchased.*

Ama, La.—Ice Plant.—A. Madere of Hahnville, La., will form company with capital stock of \$12,000 to build ice plant.

Carencro, La.—Water-works.—City council is reported to have awarded contract at \$11,170 for construction of water-works. Address Secretary of City Council.

De Ridder, La.—Electric-light and Water Works.—D. O. Dunn will probably organize a company to build electric-light plant and water-works.

Donaldsonville, La.—Paving Contracts.—City has let contract to the Southern Bitulithic Co., R. M. Hyams, representative, New Orleans, La., for paving to cost \$58,573. Main office of Southern Bitulithic Co. is at Nashville, Tenn.

Hammond, La.—Ice Plant.—Reported that Mr. Nalty of the Hammond Lumber Co. is planning to build an ice plant, capacity to be 50 tons daily.

Harahan, La.—Machine Shops.—Illinois Central Railroad will rebuild its machine shops recently burned at a loss of \$50,000; size and character of buildings not determined; A. S. Baldwin, chief engineer, at New Orleans, La.

New Orleans, La.—Ice Plant.—Crescent Ice Co. will extend its facilities for manufacturing ice by erecting another plant of 250 tons capacity daily. Cold-storage rooms will also be provided for storing ice. It is stated that plans are being prepared by H. D. Stratton of Philadelphia, Pa.

New Orleans, La.—Land Improvements.—Incorporated: Orleans Realty Co., capital \$100,000; President, John F. Richard; vice-president and secretary-treasurer, O. J. Paul.

New Orleans, La.—Land Improvement.—Incorporated: Charles Hernandez Company, capital \$10,000, by Charles Hernandez, Walter Allen and James G. Boulligny.

New Orleans, La.—Truck Farming.—Truck Farm Co., Ltd., has been incorporated with a capital stock of \$375,000 to develop truck farming lands, etc.; Edward Wisner, president; Orman Crawford, vice-president; Milard C. Baker, secretary; John Dresser, treasurer.

New Orleans, La.—Grain Elevators.—La Baronne Realty Co. has received municipal permit for erection of three elevators to cost \$23,000.

New Orleans, La.—Cattle-feed Factory.—Lawrence & Hamilton will establish cattle-feed factory. They have leased three-story 100x120-foot building, which will be equipped with the necessary machinery.

New Orleans, La.—Contracting.—Incorporated: Barnes-Offutt Contracting Co., with capital stock of \$20,000; Anderson Offutt, president, and E. A. Barnes, secretary.

New Orleans, La.—Grain Elevator and Power Plant.—It is stated that the New Orleans Terminal Co. has awarded contract for the erection of its proposed new grain elevator at Chalmette, for which James Stewart & Co. of Chicago, Ill., have prepared plans and specifications. This firm is probably the contractor, but this is not definitely known. The elevator will be erected after fireproof specifications, and is to be lighted and operated by electricity. The New Orleans Terminal Co. will probably call for bids, to be opened September 1, on the construction of its proposed \$400,000 power-house to be located at Chalmette for supplying the light and power for all the warehouses, wharves, sheds, offices, etc., of the company at Chalmette and New Orleans. J. F. Hinckley is chief engineer of the company, whose extensive plans, calling for the expenditure of more than \$1,000,000, have previously been referred to.

Royal, La.—Lumber Plant.—Royal Lumber Co., reported incorporated last week with \$150,000 capital stock, will erect wood buildings 70x210 feet and equip with machinery for manufacturing 40,000 feet of lumber daily. Power and woodworking machinery have not been purchased. D. E. James is manager.*

Selma, La.—Sawmill.—Grant Land & Lumber Co. is said to be awarding contracts for construction work in connection with its proposed sawmill, which is planned to have a daily capacity of 30,000 feet of lumber.

MARYLAND.

Baltimore, Md.—Asphalt Roofing Plant.—It is stated that a company has been organized and is negotiating with the Curtis Bay Company, 8 East Lexington street, for the purchase of a water-front location to establish plant for manufacturing asphalt roofing from Texas petroleum.

Baltimore, Md.—Paving.—Board of Awards. E. Clay Timanus, president, City Hall, has approved specifications of the Commissioners for Opening Streets for paving Oak street from 24th to 25th street and 27th street from Oak to Calvert street. Specifications for Oak street call for sheet asphalt, asphalt blocks and bitulithic, and for 27th street bitulithic, sheet asphalt, asphalt blocks and vitrified bricks.

Baltimore, Md.—Mantel Plant.—Steiner Mantel Co., Fairmount avenue and 8th street, has increased its capital stock from \$50,000 to \$100,000.

Baltimore, Md.—Sewage-testing Plant.—Sewerage Commission, Calvin W. Hendrick, chief engineer, American Building, has secured site at Wallbrook for proposed sewage-testing plant. Specifications for the plant have been prepared by the engineer.

Baltimore, Md.—Paving.—The municipal Board of Awards has awarded contracts to Patrick F. Reddington, 325 St. Paul street, for paving with vitrified brick the following streets: Carroll street, \$5171; Glover street, \$2270, and Port street, \$5215, and to P. Flanagan & Son, Lexington and Calvert streets, for paving Columbia avenue with granite blocks at their bid of \$4574.

Baltimore, Md.—Clothing Factory.—Wm. J. Deppenbrock Company has been incorporated to manufacture shirts, underwear and other wearing apparel by Wm. J. Deppenbrock, Louis Pfalzgraf, Charles Holzman, John A. Wagner, 109 West Camden street, and Wm. R. Wagner, 109 West Camden street.

Baltimore, Md.—Steam Specialties.—The Equitable Steam Specialty Co. has been incorporated with capital stock of \$20,000 to manufacture and deal in steam specialties by Melvin H. Jones, 15 East Montgomery street; Milton C. Jones, 218 North Collington avenue; George L. Sleight, 1907 East Lanvale street; F. Ernest Dodson and T. Howard Embert.

Baltimore, Md.—Car Barns.—The United Railways & Electric Co., C. H. Vandevanter, chief engineer, will erect four new car barns to cost about \$500,000. The buildings will be constructed of reinforced concrete, and it is reported that Simonson & Pietsch, architects, American Building, Baltimore and South streets, will prepare the plans and specifications.

Baltimore, Md.—Cotton-mill Enlargements.—Messrs. Thomas B. Stanfield & Son have been awarded contracts for several additional buildings to be erected for the Mount Vernon-Woodberry Cotton Duck Co. at Meadow Mill, Woodberry. An opener and clothhouse one story high and 75x100 feet will be built. Under this building will be a reservoir 75x100 feet and 10 feet deep, which will hold 500,000 gallons of water. A pump-house one story high and 22x26 feet will also be built, together with a small building 10x16 feet. The plans were prepared by the company's engineer. Contracts for excavating for the structures have been awarded to John Potts & Son.

Baltimore, Md.—Publishing.—Real Estate Publishing Co. has been incorporated with a capital stock of \$2000 for publishing and printing; incorporators, Harry D. Gasson, 835 North Fremont avenue; Philip B. Billingsley, 632 North Arlington avenue; George J. Thomas, 519 West Franklin street; Charles Crook, 1419 West Lombard street, and Lawrence D. Kearney.

Baltimore, Md.—Concrete Blocks.—Enterprise Concrete Machine Co., 763 Calvert Building, reported last week as incorporating with a capital stock of \$50,000, will erect structure 50x100 feet and equip it for manufacturing about 2500 cement blocks per day; cost of building and equipment about \$3000; H. C. Kilmer, president and general manager; H. F. New, secretary and treasurer.

Baltimore, Md.—Ice Plant.—The Sumwalt Ice Co., Howard Hammond, president, 2625 Maryland avenue, is contemplating the erection of an ice plant with daily capacity of 400 tons to cost about \$200,000.

Denton, Md.—Sewers.—City has received plans and is advertising for bids on construction of its proposed new sewers; C. Leslie Walls, clerk.

Myersville, Md.—Grain Elevator.—Farmers' Mutual Exchange has been incorporated with capital stock of \$10,000 and will install equipment for grain elevator; George T. Gaver, president; Cyrus F. Flook, secretary, and Geo. H. Harp, treasurer.

Towson, Md.—Road Improvement.—Baltimore County Commissioners are considering the construction of the Whitehall road at a cost of about \$6900.

MISSISSIPPI.

Aberdeen, Miss.—Fertilizer Factory and Oil Mill.—People's Oil Mill & Fertilizer Co., reported incorporated in June with capital stock of \$100,000, has organized with Kirby Lamm, president; R. W. Elkner, vice-president; J. P. Thompson, secretary, and W. H. Carlisle, treasurer. Company will proceed to build cottonseed-oil mill of 60 tons capacity and a fertilizer factory as previously announced. J. J. Wright is general manager.

Amory, Miss.—Hardware.—Incorporated: Amory Hardware Co., capitalized at \$4000, by E. D. Gilmore, A. G. Thompson and others.

Biloxi, Miss.—Fish and Oyster Canneries.—Incorporated: Consumers' Fish & Oyster Co., capitalized at \$30,000, by W. H. Boslog, Joseph Rusk, J. A. Broadus and others.

Biloxi, Miss.—Gas Plant.—Biloxi Gas Co. will soon have completed the construction of its gas plant; water gas will be manufactured, daily capacity to be 100,000 cubic feet. Frank D. Moses, 7 North Stockton street, Trenton, N. J., is engineer in charge and had contract for the entire work.

Brookhaven, Miss.—Turpentine Plant.—Reported that J. C. Francke of Toledo, Ohio, will establish plant for manufacturing turpentine, using a new chemical process which extracts the turpentine and tar from pine knots and leaves a merchantable charcoal.

Clinton, Miss.—Ice and Laundry Plant.—Incorporated: Clinton Laundry & Ice Manufacturing Co., capitalized at \$10,000, by J. W. Provine, W. T. Lowrey and others.

Epley, Miss.—Lumber.—Incorporated: Lamar Lumber Co., capitalized at \$100,000, by V. M. Scanlan, P. W. Williams and others.

Ethel, Miss.—Mineral Developments.—The Attala Oil & Mineral Co., which incorporated with capital stock of \$30,000, has leased lands on the Aberdeen branch of the Illinois Central Railway and proposes developing for gas, oil and other minerals. As soon as the preliminary working capital has been obtained machinery will be purchased and operations begun. J. C. Gregory is president; A. H. Watson, vice-president, and H. J. Bell, secretary-treasurer.

Greenville, Miss.—Box Factory.—Holly-Matthews Box Co. of Sikeston, Mo., is reported as to build box factory here.

Hattiesburg, Miss.—Land Improvements.—Incorporated: Hattiesburg Heights Land Co., capitalized at \$100,000, by W. A. Johnson, G. D. McInnis and others.

Hattiesburg, Miss.—Lumber Company.—Incorporated: Perry County Lumber Co., capitalized at \$25,000, by Charles H. Wagner, Robert B. Loveland and Walter D. Cary.

Jonestown, Miss.—Oil Mills.—Incorporated: Eastman Oil Mills, capitalized at \$25,000, by J. F. Waggoner, W. E. Gage and others.

Maben, Miss.—Fertilizer Factory.—W. F. Butler is interested in plans for installing machinery to manufacture fertilizers; equipment not purchased.*

Marks, Miss.—Development Company.—Incorporated: Riverside Development Co., capitalized at \$10,000, by T. J. Barrow, A. A. Arthur and others.

Meridian, Miss.—Sewer Main.—The city, having rejected all bids for 6800 feet of new sewer mains, will do the construction work under the supervision of W. G. Meyer, city engineer.

Meridian, Miss.—Publishing.—Incorporated: Dispatch Publishing Co., capitalized at \$25,000, by G. S. Beard, S. A. Witherspoon, W. E. Baskin and others.

Moss Point, Miss.—Land Improvement.—Incorporated: W. C. Griffin Land Co., capitalized at \$500,000, by W. C. Griffin, L. H. Dantzer and others.

Orange Grove, Miss.—Brick and Tile Works.—Incorporated: Orange Grove Brick & Tile Co., capitalized at \$25,000, by T. M. Favry, Dan Nichols and others.

Winona, Miss.—Foundry and Shops.—Chartered: Bomberger Foundry & Machine Co., capitalized at \$10,000, by H. R. Bomberger, C. R. Kelso and others.

Yazoo City, Miss.—Gas Plant.—J. T. O'Rourke of New Orleans, La., is reported as applying for franchise to construct gas plant to furnish gas for power and fuel only.

MISSOURI.

Cape Girardeau, Mo.—Gas Plant.—Cape Girardeau Water-Works & Electric Light Co. has awarded all contracts for the construction and equipment of its proposed gas plant. Plant is to manufacture 150,000 cubic feet of coal gas every day. Frank D. Moses, 7 North Stockton street, Trenton, N. J., the engineer in charge, has contract for the entire work, which is progressing.

Creve Coeur, Mo.—Telephone System.—Incorporated: Creve Coeur Telephone Co., by Charles Elgasser, A. S. Baumann, Andrew Seeger and others.

Higginsville, Mo.—Telephone System.—Chartered: Roland Telephone Co.; capital \$3125; incorporators, N. J. Dyer, S. S. McCulloch, J. T. Adams and others.

Joplin, Mo.—Mining.—Incorporated: Disbrow Mining Co.; capital stock \$50,000; incorporators, Thomas F. Lennan, Temple Chapman, Charles A. Disbrow and others.

Kansas City, Mo.—Railway Bridge.—It is stated that the War Department has approved the plans of the Kansas City, St. Joseph & Excelsior Springs Railway Co. for building a bridge across the Missouri river. In June the Manufacturers' Record referred to the company as intending to construct a bridge for steam and electric cars and for wagon vehicles, the cost to be \$800,000; Joseph J. Helm, president of company.

Kansas City, Mo.—Incorporated: Atmospheric Condensation Co., capital \$50,000; incorporators, Arthur Pennell, M. F. Smith, S. D. Knapp and others.

Kansas City, Mo.—Preserving Plant.—Block-Horn Preserving Co. will build plant to cost \$30,000.

New Cambria, Mo.—Drainage Ditch.—Charlton Drainage District No. 1, R. H. Kern, president, and Gran Goodson, secretary, reports plans for building a drainage ditch to reclaim 40,000 acres of land; cost to be about \$50,000. W. G. Walker of Macon, Mo., is engineer in charge.

St. Louis, Mo.—Frog and Switch Works.—St. Louis Frog & Switch Co. has broken ground for the erection of a new manufacturing plant on site 165x600 feet. Building will be fireproof; 110x150 feet; all tools installed to be driven by electric motors. Large cranes will be included. Plans have been drawn by and erection will be superintended by John J. Lichter, president of company. Plant will cost \$100,000. R. S. Colton is vice-president, and R. E. Elstein, general manager.

St. Louis, Mo.—Lumber.—Incorporated: Becker Land & Lumber Co., by Anton Becker, George Becker and Louis A. Becker, to manufacture, buy and sell all lumber products; capital stock \$50,000.

St. Louis, Mo.—Coffee and Tea Mills.—Incorporated: Missouri Tea & Coffee Co., capital stock \$50,000, by Adolph R. Grund, Fred D. Anthony, R. L. Hannah and Philip Grund.

St. Louis, Mo.—Steel Bridge.—Hillsborough, Kinnawick & Northern Railway Co. will expend \$300,000 for the construction of the steel bridge reported last week. It will erect boiler and machinery house in connection with the construction work involved, and will doubtless purchase considerable machinery, tools, etc., needed in bridge construction. Lichter & Jens, 1318 Chemical Building, are the engineers in charge.

St. Louis, Mo.—Engraving Plant.—Incorporated: Farnsworth-Childs Engraving Co., by Rositter J. Farnsworth, William H. Montague and George A. Childs; capital stock \$50,000.

St. Louis, Mo.—Sewer Contracts.—Board of Public Improvements has let contract to George G. Prendergast Construction Co. at \$70,885 for sewer work; to same company for another sewer construction at \$78,521.

St. Louis, Mo.—Gas-lamp Fixtures.—Chartered: Charles J. Johnson Manufacturing Co., by Wm. E. Johnson, Charles J. Johnson, Benjamin R. Leavell, Isaac D. Sperry, all of St. Louis, and James A. Leavell, Fulton, Mo., to manufacture and deal in gas-lamp fixtures; offices at 409 Security Building.

St. Louis, Mo.—Tool Works.—Reported that the Acme Truck & Tool Co. will build another and larger plant than its present establishment.

St. Louis, Mo.—Heater Works.—The Wilson Heater Co. is said to have plans under contemplation for the erection of a new plant.

NORTH CAROLINA.

Charlotte, N. C.—Land Improvement.—C. W. Johnson, J. C. Prior, E. D. Latta and Mrs. H. L. Spencer have incorporated the North Charlotte Real Estate Co., with a capital stock of \$150,000, to develop 175 acres of land, including park covering about 15 acres, plans for which have been made.

Charlotte, N. C.—Cotton-mill Machinery.—The Loom, Reed & Harness Co. has doubled the capacity of its reel manufacturing de-

partment, having just installed a quantity of machinery imported from England.

Durham, N. C.—Sawmill.—Charles and Eulis Penny are reported to have awarded contract for the erection of their proposed sawmill, a large plant to be operated in the development of 1100 acres of timber land near Durham.

Dillsboro, N. C.—Cotton Mill and Water-power Development.—It is stated that G. W. Ragan and others of Gastonia, N. C., have purchased and will develop a water-power property on the Tuckasee river one mile from Dillsboro; electricity to be transmitted for operating a cotton mill which they will build and for power and lighting purposes generally.

Goldsboro, N. C.—Knitting Mill.—Goldsboro Knitting Mills, recently reported incorporated, has leased brick building and will install knitting machinery for manufacturing hosiery. Machinery has not been purchased, and information is wanted; capacity to be 250 dozen pairs of hose daily. Geo. C. Royall is president; Jacob Rosenthal, vice-president; A. C. Kornegay, secretary-treasurer, and A. L. Bassett, superintendent. Capital subscribed is \$30,000.*

McAdenville, N. C.—Cotton Mill.—McAden Mills will build another mill of 10,000 spindles at a cost of \$200,000; will also replace 340 old looms now in position with same number of modern type; present equipment 15,000 spindles and 340 looms.

McDonalds, N. C.—Brick Works.—J. L. Townsend expects to build brick works; daily capacity to be 25,000. Machinery not purchased yet.*

Salisbury, N. C.—Lumber Mill.—It is reported that the Fred Brenner Lumber Co. of Knoxville, Tenn., is completing arrangements for erection of its proposed lumber mill at Salisbury.

Salisbury, N. C.—Furniture.—Incorporated: Griggs Furniture Co., with capital stock of \$100,000, by N. W. Collett and others.

Salisbury, N. C.—Furniture Factory.—Incorporated: Grace Furniture Co., with capital stock of \$100,000, by N. B. McCanness, N. W. Collett and associates, for manufacturing furniture.

Spray, N. C.—Cotton Mill.—Rhode Island Company has broken ground for erection of a 126-foot extension 100 feet wide, with basement 50x100 feet, the work being in charge of a local contractor. This extension will be used for warping, slashing, drawing in, weaving and finishing. Looms will be removed from present building and spindles substituted, the new machinery to comprise 400 spindles and 150 looms, contracts for which have been awarded. This enlargement was reported in May last, and it will cost about \$50,000. Lockwood, Greene & Co. of Boston, Mass., are the engineers in charge; present equipment 5300 spindles and 50 looms.

Taylorsville, N. C.—Chair Factory.—H. T. Campbell is reported interested in plans for establishing a chair factory.

Washington, N. C.—Brick Works.—Novelty White Brick Co. has effected organization, capital stock being \$100,000, and will proceed to build its proposed plant. L. R. Mayo is president; C. H. Wallace, treasurer, and W. E. Jones, general manager.

Wilson, N. C.—Fertilizer Factory.—Hadley, Harris & Co. are reported as to enlarge their fertilizer factory.

SOUTH CAROLINA.

Anderson, S. C.—Oil Mills.—People's Oil & Fertilizer Co. increased capital stock from \$25,000 to \$55,000.

Bennettsville, S. C.—Hardware.—Incorporated: Enterprise Hardware Co.; E. M. Rowe, president; capital stock \$10,000.

Calhoun Falls, S. C.—Cotton Mill.—Incorporated: Calhoun Mills, to be capitalized at \$100,000, for cotton manufacturing, by W. F. Cox, N. B. Sullivan, J. M. Evans, R. E. Ligon and others. This is the company lately announced as to be organized by W. F. Cox and associates of Anderson, S. C., to build a plant of 25,000 spindles and about 750 looms; construction to begin October 1. Address Mr. Cox at Anderson.

Charleston, S. C.—Central Power Station. Simons-Mayrant Company's contract, reported last week, calls for erection of central power station for United States navy-yard; brick and steel building with plastic roof; cream-colored pressed brick; structural steel; structural and ornamental iron; metal windows and sash; metal fireproof doors; enamel brick. These materials will be wanted, and manufacturers are invited to correspond with contractor. Building to cost \$150,000.*

Clemson College, S. C.—Electric Plant.—Clemson Agricultural College has let contract to C. M. Guest for construction of building for proposed electric plant, 40x80½

feet; cement, stone and brick; building and machinery to cost \$25,000; W. M. Riggs, engineer in charge, and will buy the machinery.*

Newberry, S. C.—Knitting Mill.—Ashley Manufacturing Co. intends to double its present equipment of 40 knitting machines; B. B. Reed, engineer in charge of installation.

Gaffney, S. C.—Silica Springs.—Chartered: Lipscomb Silica Springs Co.; W. S. Lipscomb, president and treasurer; capital stock is \$5000.

Greenville, S. C.—Brick Works.—Incorporated: Greenville Brick Co., capital stock \$10,000, by W. M. Kellar and others.

Newberry, S. C.—Brick Works.—Incorporated: Newberry Brick & Cement Co.; capital stock \$2000. W. F. Gray and others are the incorporators.

Spartanburg, S. C.—Bottling Plant.—Phospho Celery Co., recently reported incorporated with \$20,000 capital stock, has organized with H. L. Bomar, president; M. F. Wooten, vice-president, and W. P. King, general manager. Company will manufacture a soda-fountain beverage.

Seneca, S. C.—Electric-light and Water Works.—The construction of water-works and electric-light plant is talked of. Address The Mayor.

Spartanburg, S. C.—Bottling Plant.—Phospho Celery Co., recently reported incorporated with capital stock of \$20,000, will erect building and install equipment to cost \$800; building to be three stories high, of brick; bottling plant not all purchased.*

TENNESSEE.

Bristol, Va.—Sawmill.—Reported that the Came-Wyman Lumber Co. is preparing to build its proposed sawmill for cutting the timber on a tract of 3000 acres near Bristol. Several miles of railway are to be constructed in this connection.

Bristol, Tenn.—Mineral and Timber Lands. It is reported that the Virginia Iron, Coal & Coke Co. has purchased for \$30,000 a tract of 21,000 acres of mineral and timber land in Johnson county, intending to develop the property in connection with its other iron-mining and manufacturing operations in the future; New York offices at 40 Wall street.

Chatanooga, Tenn.—Steel Plant.—Southern Steel Works, reported last week as increasing capital stock from \$20,000 to \$60,000, will erect additional building, 90x120 feet, of frame, in connection with improvements proposed; product to be 8000-pound steel castings, six tons daily, and tool steel in small quantities. All machinery has been purchased.

Chatanooga, Tenn.—Bridges.—It is understood that the Queen & Crescent Route will invite bids for the reconstruction of its high bridge across the Kentucky river near Chattanooga, also for reconstruction of bridge across the Tennessee river on its line between Oakdale and Somerset, Ky.; Wm. Doyle, superintendent bridges and buildings, Somerset, Ky.; New York offices at 80 Broadway.

Cleveland, Tenn.—Creamery.—J. B. Gillman, T. L. Rogers, W. L. Ledford and associates will organize \$5000 stock company to build creamery.

Coal Creek, Tenn.—Electric-light Plant.—Banks & Taylor will build the electric-light plant recently mentioned; capacity to be about 1000 lamps. Machinery has not been purchased and no engineer in charge has been engaged.

Covington, Tenn.—Sewer System.—City has received plans and specifications for its proposed sewer system recently mentioned. Work will comprise five miles of sanitary sewers and two septic tanks. Plans, etc., were furnished by Granberry Jackson, engineer in charge, Nashville, Tenn.*

Hampton, Tenn.—Sawmills.—W. M. Ritter Lumber Co. of Columbus, Ohio, is understood to be preparing to build its proposed sawmill for cutting over large tracts of timber land near Hampton, in connection with which developments there will be constructed a logging railway six miles long.

Jackson, Tenn.—Railway Machine Shops.—It is stated that the Mobile & Ohio Railroad is preparing to add largely to the capacity of its machine shops in connection with \$1,000,000 improvements, that including doubling its trackage between Jackson and Corinth, Miss. These improvements have been under consideration; New York offices at 80 Broadway; W. G. Hayslett, supervisor of bridges and buildings, Tuscaloosa, Ala.; A. B. Minton, master mechanic, Jackson, Tenn.

Johnston City, Tenn.—Paving Contract.—S. H. Ponder is the successful bidder on contract to put in granolithic pavements on reservation, Soldiers' Home. Contract calls for 65,864 yards and bid was \$9,817.76. Four hundred thousand pounds of cement, 20 carloads of sand and 55 carloads of crushed

stone are expected to be needed. Mr. Ponder also has contract for 45,000 feet of sidewalk.

Lebanon, Tenn.—Electric Plant.—Wesley W. Dillon and J. T. Odum are reported as contemplating the erection of electric-light and power plant.

Nashville, Tenn.—Confectionery Factory.—American Confectionery Co., reported recently, will erect 60x80-foot building of mill construction; machinery will be installed for manufacturing confectionery; capacity 75,000 pounds per day; cost from \$15,000 to \$18,000 for building and equipment; Jaws, H. Yeaman, 40½ Church street, architect and engineer in charge; machinery to be purchased includes 125-horse-power boiler, electric motors, dynamo, electric elevator, 10-ton ice machine, etc.*

Nashville, Tenn.—Electric-power Plant.—Nashville Railway & Light Co. is rapidly completing the extensive improvements to its electric-power plant in accordance with the decisions previously made. It is investing about \$500,000 for the betterments, including the installation of 12 new boilers of 600 horse-power each, mechanical stokers, coal-handling plant, etc. Boiler-room enlargement calls for erecting a 40x70-foot structure. A pump chamber will be installed on the river side of the power-house, chamber being 15x30x10 feet, of massive concrete construction, etc. Plans and specifications and installation work has been under the direction of the Schofield Company of New York and San Francisco.

Shelbyville, Tenn.—Cotton Mill.—Reported that the Sylvan Mills will install considerable new machinery in order to increase capacity; present equipment 3720 spindles and 104 looms.

Waldensia, Tenn.—Coal Mines and Coke Ovens.—Incorporated: Waldensia Coal & Coke Co., with capital stock of \$50,000, and W. E. Cassidy, president; R. M. Jackson of London, Ky., secretary-treasurer, and H. C. Thompson of London, Ky., vice-president and general manager. This company has leased the properties of the Chicago-Tennessee Coal & Coke Co., including 5000 acres of coal lands, 120 coke ovens, miners' cottages, three and one-half miles of railway, etc. It will resume operations at the mines with an output of 3000 tons daily in the near future, and will blow in the coke ovens. Address General Manager.

TEXAS.

Beaumont, Texas.—Lumber Plant.—Santa Fe Lumber Co. has been incorporated with a capital stock of \$20,000 by W. Dixon, George W. Carroll and T. W. Garrett.

Bello, Texas.—Land Improvements.—Bello Development Co. has been incorporated with a capital stock of \$50,000 by Ed Roos, J. F. Wolters and George A. Gibbons, Jr.

Big Springs, Texas.—Railway Machine Shops, etc.—Texas & Pacific Railroad will erect 20-stall roundhouse and 200x450-foot shops; construction of stone or brick; contract awarded to D. J. Rogers of Rastrop, Texas.

Brownsville, Texas.—Electric-light Plant.—City has granted franchise to Brownsville Water, Light & Power Co. for electric-light plant.

Bryan, Texas.—Water-works Improvements. Bryan Light & Water Co. will extend the mains and enlarge the pumping capacity of its water-works system. Cost of buildings and equipment has not yet been decided. Boilers and pumps will be purchased. Louis G. Hester of Houston is engineer in charge. (Recently referred to.)

Bunch, Texas.—Turpentine Plants.—Reported that the Texas Naval Stores Co. of New Orleans, La., will build turpentine plants at different points in Texas, the first to be located at Bunch.

Cameron, Texas.—Cotton Gln.—Incorporated: Cameron Gln Co., capital stock \$10,000, by R. L. Batt, J. C. Joseph and Charles Sens.

Dallas, Texas.—Land Improvement.—Incorporated: Graham Realty Co., capital stock \$10,000, by W. W. Graham, Stephen Gray and Joe L. Coulson, all of Dallas.

Denton, Texas.—Gas Plant.—Newton M. Lee and associates have applied to city for franchise to erect and operate gas plant.

El Paso, Texas.—Construction Company.—Incorporated: Southwestern Construction Co., capital stock \$60,000, by W. H. Austin, James L. Marr, Charles N. Bassett, W. E. Race, John A. Happer and W. B. Latta.

El Paso, Texas.—Stone Works.—American Cast Stone Co. has been incorporated with capital stock of \$5000 by Frank Foster, Chas. A. Moitane and P. C. Faddis.

Fort Worth, Texas.—Ice Company.—Incorporated: Rock Island Ice Co., capital stock \$15,000, by James W. Day, W. H. Little of Fort Worth and J. S. Royal of Cleburne, Texas.

Henderson, Texas.—Lumber Mills.—Incorporated: Henderson Lumber & Planing Co., capitalized at \$25,000, by J. H. Reese, C. H. Connel and L. H. Evans.

Houston, Texas.—Pickling Plant.—Gordon Pickling Co. is reported as to enlarge its plant.

Jasper, Texas.—Turpentine Plants.—It is said the Landis Turpentine Co. of New Orleans, La., will establish several turpentine plants in Texas, locating the first at Jasper.

Marlin, Texas.—Glinery.—Incorporated: Oltorf-Emerson Glinery Co.; capital stock \$500; incorporators, D. R. Emerson, L. E. Oltorf and C. A. Oltorf.

Plato, Texas.—Cotton Gin.—Incorporated: Plato Gin Co., capital stock \$3,000, by R. K. Erwin, C. W. Singleton and F. B. Kenner.

Port Arthur, Texas.—Railway Machine Shops, etc.—It is stated by dispatches that the Kansas City Southern Railway is inspecting its facilities with a view of arranging to begin the proposed improvements, the latter to include the erection of machine shops, coaling station at the docks, roundhouse, enlargement of yards, etc. Coaling station will have a capacity of 250 tons of coal; New York offices at 25 Broad street; W. Coughlin, general manager, Kansas City, Mo.

Port Arthur, Texas.—Railway Machine Shops, etc.—It is reported that the Kansas City Southern Railway Co. is preparing to build its proposed machine shops, roundhouses, coaling stations for ships and other facilities at Port Arthur, about \$100,000 to be expended; New York offices at 25 Broad street; A. F. Rust, resident engineer at Kansas City, Mo.; F. B. Clark, general foreman of bridges and buildings, Texarkana, Texas.

San Antonio, Texas.—Development Company.—Chartered: South Pressa Development Co.; capital stock \$30,000; incorporators, E. A. Fox, Walter P. Napier and F. M. Swearingen.

Sherman, Texas.—Oil.—Independent Oil Co. has been incorporated with a capital stock of \$15,000.

Taylor, Texas.—Asbestos Deposits.—D. F. Brooks reports the discovery of asbestos deposits in the Llano mountains, and he contemplates organizing a company to develop.

Texarkana, Texas.—Cotton-twine Mill.—Reported that A. J. Crandall, superintendent of the Ashaway Line & Twine Manufacturing Co. of Ashaway, R. I., is arranging for establishment of branch plant at Texarkana or some other Southwestern city.

Texarkana, Texas.—Electric-light Plant.—W. P. Harrison and associates of the Texarkana Telephone Co. of Texarkana, Ark., have received franchise to establish electric-light plant.

VIRGINIA.

Abingdon, Va.—Steam Laundry.—J. P. Honaker is reported as to build steam laundry.

Ashland, Va.—Water-works, etc.—Incorporated: Ashland Gas, Sewer & Water Co., by J. F. Howison (president), Ashland; Isaac Diggins, Richmond; W. L. Foy (secretary), Ashland; John D. Harris, Philadelphia; Samuel H. Pulliam, Richmond; capital stock \$25,000; purposes, construction and maintenance of sewer culverts, etc., for gas and water supply for town of Ashland.

Berkley, Va.—Marine Railway.—It is reported that the Colonna Dry-Dock Co. is preparing to construct its proposed marine railway to have a capacity of 2000 tons. Company has water-front site of 400 feet, and was formed previously by capitalists, but their plans have been delayed. J. C. Howell of Washington, D. C., is president. H. L. Crandall of Boston, Mass.; H. A. Pressey and others of Washington, D. C., are interested. Capital stock is \$200,000.

Big Stone Gap, Va.—Water Supply.—Incorporated: Clear Creek Water Co., by E. J. Prescott (president), E. L. Carter, John W. Chalkley (secretary), J. P. Wolfe and S. W. Wax; capital stock \$50,000.

Brookneal, Va.—Bridge Company.—Chartered: Brookneal Bridge Co.; E. R. Moore, president; W. L. Williams, secretary and treasurer; capital stock \$10,000.

Danville, Va.—Manufacturing.—Incorporated: Nowell-Anderson Manufacturing Co., capital stock \$100,000, by George L. Nowell (secretary), N. A. Fitzgerald (vice-president), B. F. Jefferson and others.

Danville, Va.—Tobacco Company.—Incorporated: Old Belt Tobacco Storage Co.; Geo. W. Swain, president; W. E. Meade, vice-president; Geo. A. Lea, treasurer; capital stock \$50,000.

Eastville, Va.—Fertilizer Factory.—Eastern Shore truckers propose organizing a company with capital stock of \$150,000 for the purpose of building a fertilizer factory. John

T. Wilkins, Jr., Thomas B. Robertson and others are interested.

Ettricks, Va.—Cotton Mill.—Pocahontas Cotton Mill Co. has begun the erection of a large clothroom for handling and baling the cloth product of its plant; will also erect some other buildings.

Galax, Va.—Talc Mines.—It is rumored that Bates & Woodstock of Boston, Mass., have purchased and will develop talc deposits in Grayson county; also rumored to build a branch railway to the mines.

Hampton, Va.—Water-works.—Peninsula Pure Water Extension Co., reported incorporated last week with capital stock of \$100,000, will build pumping station, reservoir, etc., the building and equipment of machinery to cost \$125,000. All the machinery has been contracted for and construction work will proceed at once; S. B. Whetstone of Hampton, president; W. H. Boardman of 426 Walnut street, Philadelphia, Pa., engineer in charge.

Franklin, Va.—Peanut Plant.—Incorporated: Virginia Pretlow Peanut Co.; J. M. Story, president; M. H. Moore, vice-president; R. A. Pretlow, secretary and treasurer; capital stock \$50,000.

Hampton, Va.—Gas Plant.—The Public Service Corporation, previously reported incorporated with capital stock of \$300,000, has awarded all contracts in connection with its proposed plant, which will have a capacity of 250,000 cubic feet daily; water-gas system. Frank D. Moses, 7 North Stockton street, Trenton, N. J., is the engineer in charge, and has contract for the entire work, which is progressing.

Harrisonburg, Va.—Ice Plant.—W. C. Switzer and associates, recently reported as to build ice plant, will operate as the Harrisonburg Ice Co. They will erect building 55x96 feet and install machinery for a daily capacity of 25 tons; cost of plant \$25,000.

Honaker, Va.—Mining.—Incorporated: Nickel Talcum Corporation, by Benjamin C. Street (president), S. L. McCurdy, E. J. Mendel (secretary and treasurer), all of Pittsburgh, Pa.; capital stock \$50,000.

Leesburg, Va.—Water-works.—City has ordered an election to be held to vote on issuing the proposed \$30,000 of bonds recently mentioned for the construction of water-works. All contracts for the water-works were awarded recently; Chas. S. York, Baltimore, Md., engineer in charge.

Louisia, Va.—Street Paving.—The city has voted an issuance of \$6000 in bonds to pay for street paving. It was recently stated that Jas. F. Bradley & Co. of Richmond, Va., were awarded contract for granolithic paving.

Luray, Va.—Ice and Cold-storage Plant.—Page Milling Co. is reported as planning the erection of an ice factory and cold-storage plant.

Lynchburg, Va.—Bottling Plant, Printery, etc.—The J. M. Echols Company is having plans and specifications prepared by Allen Chesterman for the erection of an industrial building 40x150 feet, three stories high, to cost from \$18,000 to \$20,000. This building will be equipped with machinery for bottling mineral water, reduction plant for water and mass printing department to cost \$20,000 and other modern equipment. James A. Anderson is president.

Marion, Va.—Foundry and Machine Works.—Incorporated: Marion Foundry and Machine Works; B. F. Buchanan, president; John S. Apperson, treasurer; W. F. Culbert, vice-president; B. A. Anderson, secretary; capital stock \$30,000.

Newport News, Va.—Land Improvements.—Incorporated: Villa Place Company; J. I. Cottrell, president; Walter Charley, vice-president; George E. Wood, secretary and treasurer; capital stock \$25,000.

Norfolk, Va.—Furniture.—Chartered: Excelsior Furniture Co.; Nathan Block, president; Michael Sanders, vice-president; Moses Block, secretary and treasurer; capital stock \$25,000.

Norfolk, Va.—Land Improvement.—Chartered: The Suburban Seaside Corporation; capital stock \$25,000. R. W. Webb is president; R. F. Hanbury, secretary and treasurer, and R. R. Hicks, general counsel.

Norfolk, Va.—Boulevard.—City council has passed ordinance appropriating \$100,000 to build proposed boulevard from Norfolk to Jamestown Exposition grounds at Sewell's Point. Address City Engineer.

Norfolk, Va.—Saw-milling Plant.—S. R. Lowm will build sawmill 26x120 feet, planing mill 50x90 feet and kiln 22x100 feet, investing about \$10,000 for erecting buildings and installing mechanical equipment. He may purchase more machinery. (Lately referred to.)

Ocean View, Va.—Power Plant.—Reported that the Norfolk & Portsmouth Traction Co.

will build a substation of its electric-power plant at Ocean View in order to supply electricity for its additional line to the Jamestown Exposition. Construction will probably begin by November 1; E. C. Hathaway, general manager, Norfolk, Va.

Pearlburg, Va.—Water-power-Electrical Plant.—Giles County Electric Railway Co., recently chartered with Charles T. Painter, president, contemplates developing water-power and building an electric plant to furnish electricity for power and lighting.

Petersburg, Va.—Trunk Factory.—Virginia Trunk & Bag Co. has awarded contract to Perkins & Conn for concrete foundation, piers and floor and to Brister & Harrison for brickwork in the construction of proposed addition to factory; building to be four stories high, 40x350 feet; cost \$25,000.

Phoebe, Va.—Street Paving.—The city has voted affirmatively as to the proposed issuance of bonds for street paving; amount, \$40,000. Address The Mayor.

Pulaski, Va.—Lumber.—Incorporated: Little Creek Lumber Co.; M. W. Jewett, president, Ivanhoe, Va.; Robert Hancocks, vice-president, Pulaski, Va.; F. E. Bunker, secretary and treasurer; capital stock \$50,000. Will operate plant of 30,000 feet capacity daily.

Purcellville, Va.—Farmers' Supplies.—Incorporated: Purcellville Farmers' Supply Co.; president, Frank P. Wilson; vice-president, H. W. Davis; secretary, J. W. Gregg; capital stock \$15,000.

Richmond, Va.—Typewriters.—Incorporated: L. C. Smith & Bros. Typewriter Co., by E. R. Williams, J. R. Tucker, E. S. Crump, all of Richmond; capital stock \$5000.

Sewell's Point, Va.—Pier.—Jamestown Exposition Co., W. E. Cottrell, governor of works, Pine Beach, Va., will construct a commercial pier on Willoughby bay at the exposition site, cost to be \$25,000. Driving of piles and construction of dock will be by separate contracts. Work will begin at once. (Mentioned last week.)

Staunton, Va.—Lumber.—Chartered: Virginia Lumber Co.; R. N. Blackford, president, Staunton; W. A. Bell, vice-president, Stokesville, Va.; James A. Bell, secretary and treasurer, Bodley, Va.; capital stock \$25,000.

Virginia Beach, Va.—Water-works, Sewerage System, etc.—The city has voted affirmatively on the proposed issuance of bonds for \$72,000 to build water-works, construct sewerage system, erect school building, grade and pave streets, etc. Address The Mayor.

Waynesboro, Va.—Feed and Grain Mill.—J. Frank Patterson is erecting building, 25x40 feet, two stories high; another, 60x25 feet, two stories, with basement and attic, both of frame. Machinery will be installed for hourly capacity of 100 bushels of bread meal and 3000 pounds of feed; cost of plant \$5000. All contracts awarded.

WEST VIRGINIA.

Charleston, W. Va.—Cold-storage Warehouse.—Incorporated: Cudahy Bros. Company, for the purpose of locating and maintaining a cold-storage warehouse; incorporators, Patrick Cudahy, C. P. J. Kroeck, Andrew S. Clark, William H. Hobdne and Jas. W. Bryder, all of Milwaukee, Wis.

Grafton, W. Va.—Gas and Oil Wells.—Incorporated: McGraw Oil & Gas Co., authorized capital \$50,000, by John T. McGraw, A. S. Warder, Jr., C. R. Durbin, J. Howard Catcher and Frederick T. Martin of Grafton.

Huntington, W. Va.—Iron Foundry.—Incorporated: Globe Foundry Co., to manufacture coil pipe, cast-iron boilers, radiators, etc.; capital stock \$250,000; incorporators, John F. Mills, William A. Mills, Frank M. Mills, H. L. Marshall and H. L. Marshall, Jr., all of Port Chester, N. Y. This company was reported July 26 as to build a plant, five buildings to be erected—95x100 feet, 60x250 feet, 50x100 feet, etc.; daily capacity to be 500 tons of iron. Wm. A. Mills is vice-president.

Keystone, W. Va.—Ice and Cold-storage Plant.—McBowell Ice & Cold Storage Co., reported chartered last week with \$20,000 capital stock, will build ice plant of 20 tons capacity and add a cold storage department later.

Morgantown, W. Va.—Coal Lands.—Reported that Pennsylvania capitalists have purchased for ultimate development an extensive tract of coal land, the sellers being George C. Sturgiss and Frank Corbin of Morgantown.

New Martinsville, W. Va.—Gas-pumping Station.—Hope Natural Gas Co. will double the capacity of its gas-pumping plant.

Parkersburg, W. Va.—Brick Works.—Incorporated: Parkersburg Brick Works, by N. L. Upson, L. E. Drummond, J. A. Dupuy, F. S. Tavenner, all of Parkersburg, and H. H.

Newman of Woodstock, Va. The authorized capital stock is \$50,000.

Parsons, W. Va.—Water-works.—Incorporated: Elk Lick Water Co. of Reading, Pa., to construct and maintain a water-works system in Parsons and Hambleton; authorized capital \$80,000; incorporators, H. E. Ahrens, R. B. Kinsey, J. S. Ahrens, W. H. Miller, Jr., and F. S. Kinsey, all of Reading, Pa.

Wheeling, W. Va.—Machine Works.—Incorporated: A. D. Howe Machine Co., authorized capital \$50,000, by R. W. Howe, E. J. Arnold, James McCann, James Henderson and W. A. Springer.

Wheeling, W. Va.—Iron and Steel Works.—It is stated that the La Belle Iron Works of Steubenville, Ohio, and the Wheeling Steel & Iron Co. of Wheeling will hold directors' meetings in September to effect plans for consolidating the two enterprises into a new corporation with a capital stock of \$15,000,000. The La Belle Company operates plants at Steubenville and Wheeling and controls the La Belle Coke Co. of Uniontown, Pa., and the Pitt Iron Mining Co. of Virginia, Minn. It is capitalized at \$7,500,000, and Isaac M. Scott is president. The Wheeling Company has plants at Wheeling, Benwood and Martins Ferry, Ohio. It has a capital stock of \$5,000,000, and C. R. Hubbard is president.

INDIAN TERRITORY.

Claremont, I. T.—Sewer Work.—Reported that city has let contract to N. S. Sherman of Oklahoma City, O. T., for constructing storm sewer; cost to be \$17,500; W. P. Bullock of Kansas City, Mo., engineer in charge.

Claremont, I. T.—Water-works.—City has awarded contract to W. W. Cook & Sons of Junction City, Kan., for construction of the water-works, for which a bond issue was recently reported voted; about \$35,000 to be expended; W. P. Bullock of Kansas City, Mo., engineer in charge.

Coalgate, I. T.—Water-works, etc.—The town has voted an issuance of bonds to the amount of \$71,000 for water-works and school buildings. Address The Town Clerk.

Sterrett, I. T.—Concrete Culvert.—Missouri, Kansas & Texas Railway system is reported as to undertake the construction of a concrete culvert of large size near Sterrett. S. B. Fisher at St. Louis, Mo., is chief engineer.

Tecumseh, I. T.—Water-works.—The city has accepted a bid for the \$80,000 of water-works bonds recently voted, and will arrange to at once begin the construction of the proposed plant. Address The Mayor.

OKLAHOMA TERRITORY.

Arapaho, O. T.—Telephone System.—Incorporated: Valleyview Mutual Telephone Co., with \$8000 capital stock, by George Kroth, E. J. Murphy, R. P. Rows, George Smart and W. M. Crane of Arapaho, J. T. McIn of Clinton, O. T.

El Reno, O. T.—Pottery.—Incorporated: El Reno China Co., capitalized at \$300,000, to operate a pottery; incorporators, C. D. Moore and Sterling Price of Huntington, W. Va.; C. R. Mahan of Sallenville, Ohio; W. T. Baring of Toronto, Ohio; M. L. Fogg and C. A. Van Ness of El Reno.

Enid, O. T.—Motor Cars.—Incorporated: Enid Motor Car Co. with \$20,000 capital stock, by C. S. McClelland, C. A. Myers, J. P. Marshall and W. A. McQuilkin.

Guthrie, O. T.—Mining.—Incorporated: J. G. White Mining & Investment Co. of Guthrie and Warsaw, Mo., with \$150,000 capital stock, by J. G. White and John M. Hofman of Hockman, Mo.; M. L. Sands of Cole Camp, Mo.; J. W. Sands of Warsaw, Mo.; G. V. Pattison and H. W. Pentecost of Guthrie.

Guthrie, O. T.—Manufacturing.—Fairfield Manufacturing Co. has been incorporated with capital stock of \$500,000 by Wm. E. Baker, Thomas J. Reynolds and James Hepburn.

Hinton, O. T.—Gins.—Incorporated: Farmers' Union Gin & Elevator Co., with \$20,000 capital stock by C. R. Contant, D. R. Ray-singer, S. H. Kirk, F. E. Elting, J. Findley and others.

Lawton, O. T.—Telephone System.—W. P. Records, F. A. Miller and F. M. English have applied for franchise to establish telephone system.

Meeker, O. T.—Gas-pipe Line.—City has given franchise to F. M. Robinson and J. H. Huckleberry, representing an Eastern company, to pipe natural gas from Bartlesville field into town.

Oklahoma City, O. T.—Improvement Company.—Incorporated: Oklahoma City Improvement Co., with \$20,000 capital stock; incorporators, C. O. Devere, Charles B. Cooke, F. B. Ziegler, A. J. Vance and G. W. Collier.

Oklahoma City, O. T.—Mining.—Chartered: Graham-Hansmaier Mining Co., with capital stock of \$250,000, by W. F. Harn of Oklahoma City, Neva Harrah and J. M. Hansmaier of Chicago.

Ringwood, O. T.—Mills.—Incorporated: Ringwood Mill & Elevator Co., with \$15,500 capital stock, by E. A. Wales, C. W. Trippie, G. W. Jeffries, S. E. Bailey and F. W. Watson.

BURNED.

Arcadia, Fla.—Peace River Manufacturing Co.'s two warehouses; loss (with contents) \$60,000.

Brownsville, Tenn.—R. W. Haralson & Son's sawmill; loss reported at \$4000.

Clarksville, Tenn.—Clarksville Hardwood Co.'s lumber plant; loss \$3500.

Memphis, Tenn.—Tennessee Brewing Co.'s plant damaged to the extent of \$30,000 according to reports.

Seaboard, Va.—Rufus A. Ayers' sawmill; loss \$3000.

Waco, Texas.—D. June Company's foundry and machine shops; loss reported at \$10,000.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Americus, Ga.—Residence.—John T. Taylor has awarded contract to John W. Shiver for erection of residence.

Anderson, S. C.—Bank Building.—Anderson Banking & Trust Co., later reported as to erect office building, will have plans prepared for 35x22-foot structure; two stories; basement room for vault, etc.; ordinary construction; hot-air heating; electric-lighting fixtures; plans now in hands of contractors for bids; architect, Joseph Huntley Casey.

Asheville, N. C.—Hotel.—Breckenridge Moon of Richmond, Va., reported as to erect hotel.

Austin, Texas.—City Hall.—City has given contract to Belger & Brydson for erection of the proposed city hall.

Baltimore, Md.—Dwellings.—Joseph H. Pentz, builder, 630 West Saratoga street, will erect 17 two-story brick dwellings on Guilford avenue north of 25th street; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Church.—Haskell & Barnes, architects, Central Savings Bank Building, are preparing preliminary plans for Ingram Memorial Chapel to be erected at the corner of McComas and Oliver streets by the Church Extension Society of the Methodist Episcopal Church, Bible House, 8 East Fayette street. (Referred to last week.)

Baltimore, Md.—Bowling Alley.—Wyatt & Nolting, architects, Builders' Exchange Building, have distributed plans and specifications for proposed three-story building for bowling alley to be erected by the Baltimore County Club at Roland Park, a suburb of Baltimore. Estimating are Gladfelter & Chambers, Woodberry avenue; Morrow Bros., 212 Clay street; John Cowan, 105 West Madison street, and the Roland Park Company, Roland Park; bids to be submitted August 27.

Baltimore, Md.—Dwelling.—Henry H. Gontrom has commissioned George Clothier, Jr., architect, 15-17 South Gay street, to prepare plans for residence to be erected on Hamilton avenue, near Harford road.

Baltimore, Md.—Bangalow.—Clarence E. Anderson, architect, 736 Law Building, has distributed plans and specifications for bangalow to be erected on Park Heights avenue for Mrs. Edward Boyce; structure to be one story, 35x10 feet, of concrete blocks. Estimating are Ignatius Smith, 1719 Liberty road; Thomas L. Jones & Son, 410 West Saratoga street; C. T. Williams, A. Knell, Jr., 213 St. Paul street; James F. Farley, 207 North street, and Henry Mombberger, 34 West Chase street; bids to be in September 1.

Baltimore, Md.—Cottage.—Clarence E. Anderson, 736 Law Building, has distributed plans and specifications for the erection of cottage on Gwynn Oak avenue, near Gwynn Oak Park, for Mrs. Elizabeth F. Hughes; structure to be two and one-half stories high, 38x42 feet; estimating, Henry Pierson & Sons, 1900 Goodman alley; Ignatius Smith, 1719 Liberty road; James F. Farley, 207 North street; Thomas L. Jones & Sons, 410 West Saratoga street; bids to be in by September 1.

Baltimore, Md.—Dwellings.—St. Paul Realty Co., 39 St. Paul street, has had plans prepared by John R. Forsythe, architect, 411 S. Paul street, for the erection of 12 dwellings on 5th street between Presbury

street and Westwood avenue, to cost about \$28,000.

Baltimore, Md.—Dwellings.—Jacob F. Gerwig, architect, 404 Hoffman Building, has prepared plans for the erection of 11 dwellings on Edmondson avenue between Payson and Bruce streets; Charles H. Stoner, builder, 1927 West Lombard street.

Baltimore, Md.—Store Improvements.—Harry L. Harmon, 2021 Eutaw place, has awarded contract to Willis & Mason, contractors, 605 Calvert Building, for improvements to store at 303 West Lexington street. Improvements include addition in rear, 15x40 feet; glass front, principally of glass to third-floor line, above which will be pressed brick; ornamental cornice; interior to be rebuilt; doors laid; stairways; sanitary plumbing; electric wiring and fixtures; steam-heating system; counters, showcases, etc.; cost about \$15,000; A. L. Forrest, Professional Building, architect.

Baltimore, Md.—Cafe.—J. Wilson Leakin, 705 Fidelity Building, has awarded contract to Chalk & Himes, contractors, 36 West Preston street, for making proposed improvements to northeast corner Howard and Fayette streets; brick division wall in basement to be removed and iron columns and steel supporting beams to be installed; corner store to have crystal front, stairways, elevator, etc.; basement to be fitted for cafe; first floor for stores; second floor for billiard hall; third floor for offices; cost about \$10,000.

Baltimore, Md.—Dwelling.—Security Storage & Trust Co., 13-19 West North avenue, has leased 12 acres of land on the Rolling road near Old Frederick road to John Higgins, who will erect a dwelling on it.

Baltimore, Md.—Dwellings.—Walter I. Westphal, builder, 1700 North Bond street, is reported to have purchased property on Potomac and Dillon streets and Fairmount avenue which will be improved 10 42 two-story dwellings.

Baltimore, Md.—Warehouses.—Safe Deposit & Trust Co., trustee, 9-13 South street, will erect four two-story warehouses on the east side of Charles street between Camden and Conway streets, and four on the west side of Light street between Camden and Conway streets. Each structure will be 15x100 feet, bids to be taken for both concrete and brick construction for the warehouses on Charles street, and if satisfactory estimates are obtained the buildings on Light street will also be erected at once. Estimating are B. F. Bennett, 123 South Howard street, and J. Henry Miller, 110-112 Dover street; Mottu & White, architects, 326 North Charles street.

Baltimore, Md.—Warehouse.—C. A. Gambrell Manufacturing Co., 309 Exchange place, has secured an additional lot 20x65 feet on the west side of Commerce street near Lombard, which completes site for its proposed warehouse for which Parker & Thomas, architects, 1109-1111 Union Trust Building, prepared plans.

Baltimore, Md.—Apartment-house.—B. W. & E. Minor, builders, 20 Clay street, have purchased lot at 12th street, Garrison avenue and Liberty road, and will erect apartment-house on the site; four stories, 38x136 feet; frame construction on stone foundation; cost about \$30,000; W. L. Minor, architect, 20 Clay street.

Baltimore, Md.—Municipal Building.—The Water Board, Alfred M. Quick, chief engineer, City Hall, will expend \$500 in remodeling old City Hall on Holliday street. A steam-heating plant will be installed.

Baltimore, Md.—Store Building.—Charles F. Stein, 215 St. Paul street, has purchased old building at 117 North Howard street, and it will be torn down and new store building four or five stories high erected.

Beeville, Texas.—Bank Building.—Beeville Bank & Trust Co. is reported as to build office structure.

Belle Haven, Va.—Bank Building.—A bank organized with John T. B. Hyslop, president, will erect bank building.

Big Stone Gap, Va.—Schools.—City has voted to issue \$15,000 of 3 per cent. bonds for equipping and building schoolhouses.

Blytheville, Ark.—Hospital.—Incorporated: People's Hospital Co., capital stock \$10,000, by P. P. Ferguson, W. W. Hollipeter and A. C. Lange, to erect a hospital.

Boynton, I. T.—School.—The bond issuance for \$10,000 for erecting school has been approved, and arrangements will be made to award contracts. Address The Mayor.

Brenham, Texas.—Business Building.—A. R. Schuerenberg has awarded contract to Alexander Griffin for the erection of his proposed building, previously reported; structure to be 50x132 feet; fireproof construction; 15-foot ceilings; plate-glass front; transoms of prism glass; sanitary floors laid in asphalt; cost \$20,000. Plans and specifications were prepared by C. H. Page of Austin, Texas.

Contract for bricks has been awarded to Brenham Brick Co. and for iron work to Beaumair Iron Works.

Bristol, Tenn.—Office Building.—Henry Roberts reported as to build six-story office building of steel frame, stone and pressed brick.

Bristow, Va.—School.—St. Edith's Academy has awarded contract to I. C. Abbott, builder, Brandy, Va., for the construction of school building; three stories and basement, 33x53.6 feet; brick with pebble-dash exterior; structural iron and steel; tin and tile roof; sanitary plumbing; Spelden & Spelden, architects, 705 G street N. W.

Caldwell, Texas.—Warehouse.—Farmers' Union Warehouse Co. has been organized with capital stock of \$5000 to build warehouse for cotton; J. C. Jones, J. C. Hale, Jr., and others, organizers.

Charlotte, N. C.—Buildings.—Hunter & Vaughn have received contract at \$8000 for erection of three buildings at county home for colored people.

Charlottesville, Va.—Hospital.—University of Virginia has awarded contract to King Lumber Co. at \$32,000 for erection of hospital building; plans call for red brick, slate-roof building, trimmed with Indiana stone to match other work; heating plant; modern plumbing, etc.

Chattanooga, Tenn.—Gymnasium.—Young Men's Christian Association contemplates the erection of gymnasium, structure and equipment to cost about \$40,000.

Chattanooga, Tenn.—Office Building.—C. E. James, recently reported as arranging to erect office building to cost about \$385,000, has awarded contract to the Chickamauga Quarry & Construction Co. for the foundation of proposed structure. Purdy & Henderson of New York and Chicago are preparing plans for the steel construction.

Chattanooga, Tenn.—Business Building.—P. A. Shelton has purchased building and contemplates adding improvements to cost about \$15,000.

Chicago, Ill.—Factory Building.—L. D. Sampson, 140 Dearborn street, wants estimates on erection of two-story brick building; 18-inch walls; flat gravel roof; 52x238 feet; 12-foot ceilings; 120-horse-power engine and boiler.*

Citronelle, Ala.—Bank Building.—Bank of DeMa, H. O. McMain, president, expects to erect two-story 30x60-foot building after November 1. Not open for plans or materials.

Clearwater, Fla.—School.—City will vote on issuing bonds for \$12,000 to erect a school building. Address The Mayor.

Colorado, Texas.—Warehouse.—Incorporated: Farmers' Union Co-operative Warehouse Co., by T. R. Witten, George E. Goodwin, O. C. Woolver and others.

Columbia, La.—Cotton Warehouse.—O. B. Hunley and J. Floyd Stewart will build cotton warehouse.

Columbia, S. C.—Residence Improvements.—Walter & Edwards, architects, have estimated that the proposed improvements to the residence of F. D. Kendall will cost \$20,000.

Columbia, S. C.—Bank Building.—Carolina National Bank awarded contract some time ago for erection of its building reported last week. Work is in progress; 57x123 feet; stone, brick and terra-cotta; three stories and basement; fireproof construction; steam heating; gas and electric fixtures; architects, Shand & La Faye; contractor, John J. Cain; cost to be \$80,000.

Columbus, Ga.—Skating Rink.—A. O. Self will build skating rink with floor 60x120 feet in dimension.

Coushatta, La.—Warehouse.—Red River Farmers' Union Warehouse Co. has been organized with capital stock of \$5000 to build warehouse.

Cordele, Ga.—Courthouse and Jail.—City has voted affirmatively as to the proposed \$80,000 bond issue for the erection of courthouse and jail. Address The Mayor.

Corpus Christi, Texas.—Hotel.—W. Fox is reported as to build hotel.

Cotton Plant, Ark.—School Building.—City will open bids this week for erection of proposed \$3000 school building for which H. J. Harker of Little Rock prepared plans.

Crowley, La.—Home Building.—Frank Culom of New Orleans, La., will furnish plans and specifications for the proposed Odd Fellows' Home; John T. Nixon, chairman of building committee.

Denison, Texas.—Railway Station.—It is stated that the Missouri, Kansas & Texas and the Houston & Texas Central railway companies will arrange for the erection of proposed union station; F. W. Bailey, superintendent of bridges and buildings.

Ellicott City, Md.—School Building.—

Brother Abraham has prepared plans and specifications for the erection of study hall for Rock Hill College; structure to be three stories high, 150x50 feet, containing about 30 rooms, including classrooms, toilet-rooms, sleeping-rooms, etc.; of brick on granite foundation; electric wiring and fixtures; estimated cost \$40,000.

Fort Meyers, Fla.—Business Block.—H. E. Heilmann has let contract to Blackburn, Gannon & Co. of Orlando, Fla., for erection of brick business block.

Fort Smith, Ark.—Warehouse.—W. J. Gawne & Co. will build warehouse 50x75 feet.

Fort Worth, Texas.—Municipal Building.—The city is planning the erection of a building 28x56 feet in size; concrete-fireproof construction; stoves for heating; electric-lighting fixtures; cost \$4000; John B. Hawley, city engineer.

Fort Worth, Texas.—Hotel.—Touraine Hotel Co. will enlarge its hotel at a cost of \$10,000.

Galax, Va.—Courthouse.—Grayson County Commissioners have let contract to P. Q. Sharke of Marion, Va., for erection of courthouse to cost \$20,175 after plans and specifications by Frank P. Milburn & Co. of Washington, D. C.

Gonzales, Texas.—Bank Building.—Reported that the Farmers' National Bank will erect office building for its own use. T. B. Palfry of San Antonio, Texas, is one of the organizers.

Greenwood, Miss.—Gallery.—Mrs. Lillian Spurrier has awarded contract to S. L. McGinnis & Co. for erection of two-story building for photograph gallery.

Greenwood, Miss.—Building.—Samuel J. Stein has let contract to S. L. McGinnis & Co. for erection of two-story building.

Henderson, Ky.—Association Building.—Y. M. C. A. building reported last week is to be 60x90 feet and will have heating plant for baths, pool and general heating; electric wiring and lighting fixtures; L. J. Darter, secretary Y. M. C. A.

Hopkinsville, Ky.—Theater.—H. L. McPherson and others propose organizing company to build theater costing from \$35,000 to \$40,000; to seat 1000 to 1200; steam or hot-water heating; electric-lighting fixtures; no final and definite decision announced as to this building.

Houston, Texas.—Association Building.—Y. M. C. A.'s proposed building, mentioned last week, will probably be fireproof, but no details have been decided. Saugnet, Staats & Smith are the architects, as has been stated.

Houston, Texas.—School Buildings.—Proposals will be opened September 3 for erection of two-story and basement eight-room school building after plans and specifications which can be seen at office of city secretary and office of Ole J. Lorehn, the architect; work to be let in four separate parts; general work; plumbing, sewerage and gasfitting; steam heating, cement floor and sidewalk. Blank forms are ready for prospective bidders. Address H. B. Rice, mayor.

Houston, Texas.—Hotel.—Reported that Hyman Levy, J. M. Dorrance and others will organize company to build hotel.

Huntington, W. Va.—Skating Rink and Theater.—Joseph R. Gallick and associates have organized the Huntington Amusement Co. with a capital stock of \$50,000 to erect skating rink and theater.

Independence, Va.—Courthouse.—Grayson County Commissioners have awarded contract to P. Q. Shrake of Marion, Va., for erection of proposed courthouse; plans and specifications by Frank P. Milburn & Co., Washington, D. C.; ordinary mill construction; cost \$35,000.

Jackson, Miss.—Warehouse.—Gulf Compress Co. has let contract to J. W. Mann & Co. for erection of proposed warehouses.

Jasper, Fla.—Cotton Warehouse.—Sea Island Cotton Growers' Association has let contract to Leslie & Johnson for erection of cotton warehouse 60x165 feet.

Johnson City, Tenn.—S. H. Ponder reports that he received contract to build proposed M. E. church, of concrete, to cost \$25,000.

Lake Charles, La.—Business Building.—Adolph Meyer has awarded contract to Maginnis & Reimer for erection of proposed building 27x80 feet; red pressed brick for front; cost \$9000.

Lebanon, Tenn.—Hotel.—Wesley W. Dillon and J. T. Odum are reported as to build a hotel to cost \$50,000.

Lexington, Ky.—Railway Station.—Contract has been awarded to Hendricks Bros. for the rebuilding of the burned depot of the Queen & Crescent Route.

Lexington, Va.—Library Building.—Virginia Military Institute will arrange to have plans and specifications prepared for its proposed

library building. Scott Shipp is superintendent.

Little Rock, Ark.—Skating Rink.—A. C. Reed will build skating rink to cost \$15,000; 175x130 feet; mill construction; incandescent electric lighting; architect, C. L. Thompson; contractor, W. R. Stevens.*

Little Rock, Ark.—Clubhouse.—Quapah Club has approved plans and specifications of Gibb & Sanders for construction of proposed clubhouse to cost \$16,000; 40x106 feet; two stories; light-colored pressed brick, etc.; S. M. Apperson, president of club.

Lockesburg, Ark.—Cotton Warehouse.—The Farmers' Union will build cotton warehouse with capacity of 1000 bales.

Louisville, Ky.—Freight Station.—It is stated that the Chesapeake & Ohio Railway is planning to erect the talked-of freight station, reported to cost about \$75,000; C. Stephens, supervisor of construction, bridges and buildings, Covington, Ky.; F. I. Cabell, engineer bridges and buildings, Richmond, Va.

Lynchburg, Va.—Orphanage.—Odd Fellows of Virginia have awarded contract, as stated lately, to Jones & Adams for erection of proposed orphanage; three stories high, 40x55 feet; colonial style of architecture; steam or hot-water heating system; gas and electric-lighting fixtures; cost about \$15,000. E. G. Fryer furnished plans and specifications.

Madisonville, Ky.—Bank Building.—Madisonville Bank, Theo. Dendinger, president, will erect bank building. (This structure erroneously reported last week as at Madisonville, La.)

Malone, Texas.—School.—City will arrange for the erection of school building to cost \$7000; Charles L. Black, superintendent of public instruction.

Mayo, Fla.—Cotton Warehouse.—Lafayette County Cotton Warehouse Association has let contract for the erection of cotton warehouse 50x100 feet.

Meridian, Miss.—Office Building.—Frank P. Milburn & Co., Home Life Building, Washington, D. C., will prepare plans and specifications for the office building, 45x170 feet, at the Alabama & Vicksburg and New Orleans & Northeastern railroad shops; J. C. Haugh, resident engineer.

Meridian, Miss.—Railway Terminal Buildings.—The Alabama Great Southern, Alabama & Vicksburg and New Orleans & Northeastern railroads will construct extensive terminals. Outbound freight building will be 552 feet long; inbound freight building will be 600 feet long, with sheds, platforms, steel doors; steam heat; mill construction; gas and electric fixtures; cost \$65,000; not yet ready for bids. The plans and specifications are being made by Frank P. Milburn & Co., Washington, D. C. Contracts will be awarded about October 1; J. C. Haugh, resident engineer.

Mineral Wells, Texas.—Hotel.—W. G. Wadley of Shreveport, La., proposes organizing company to build hotel of 150 to 200 rooms; architect not engaged. (Reported last week.)

Nacogdoches, Texas.—Building.—E. A. Bloor and associates will erect two-story brick building, 100x140 feet; electric-lighting fixtures; steam-heat system of American Radiator Co.; cost \$30,000; architect, D. Rulfs; contractors, Rulfs & Herring.

Newbern, N. C.—Jail.—County commissioners have awarded contract to B. F. Smith Fireproof Construction Co. of Washington, D. C., for the proposed improvements to jail; \$10,000 appropriated.

Newbern, N. C.—Temple.—King Lumber Co. of Charlottesville, Va., has contract for erection of proposed Elks' Temple; press brick, stone and terra-cotta trimmings; steam or hot-water heating; electric-lighting fixtures; passenger elevator; W. P. Rose, architect, Raleigh, N. C.; cost \$70,000.*

Newberry, S. C.—Courthouse.—Frank P. Milburn & Co., Home Life Building, Washington, D. C., have been selected to prepare plans and specifications for the Newberry county courthouse. Bids will be called for when the plans are ready.

Newbern, N. C.—Jail.—Matthew & O'Brien, Southern Building, Wilmington, N. C., are preparing plans for the proposed remodeling of the county jail. Cages and jail work will be needed, and the engineers mentioned want catalogues on the subject.*

New Orleans, La.—Hothouse.—Commissioners of city parks will not erect until next year the \$10,000 hothouse reported last week. Suggestive plans and ideas for the building will, however, be considered. Correspondence in this connection is invited. Joseph Bernard is superintendent.

New Orleans, La.—Bank Building.—Canal Louisiana Bank & Trust Co. has awarded contract, as stated last week, to George J. Glover, Hibernia Bank & Trust Building, for erection of bank and office building;

nine stories high; steel fireproof construction; Webster or Paul heating plant; electric and gas lighting fixtures; electric elevators; estimated cost \$350,000; plans prepared by Diloll & Owens. Steel and terra-cotta contracts have been awarded by Mr. Glover, and he wants proposals on the remaining materials required.*

New Orleans, La.—Dwelling.—Mrs. John A. Morris, St. Charles Hotel, will build dwelling 56x55 feet, to cost about \$75,000, after plans and specifications by the De Buys-Levy Company.

Newville, Ala.—Warehouse.—Incorporated: Farmers' Warehouse Co., capital \$3000, by J. T. Griffin and others.

Norfolk, Va.—Hotel.—Incorporated: Tanner Hotel Co., with James T. Tanner, president; L. H. Scott, vice-president; Robert Kelser, secretary; capital stock \$20,000.

Norfolk, Va.—Turkish Baths, Offices, etc.—Norfolk Baths Corporation has organized to erect modern Turkish bath establishment. Structure will be of brick and stone, five stories high, containing about 50 rooms; upper floors to be used for baths and ground floor for stores or offices; cost of construction and equipment about \$100,000; fireproof construction; heating plant not decided; electric-lighting fixtures; to open bids September 1; Breese & Mitchell, architects; Dr. Livius Lankford, president; J. Leon Wood, vice-president; R. E. Thompson, secretary and treasurer.

Norfolk, Va.—Hospital.—Norfolk Protestant Hospital has had some changes made in the plans and specifications for rebuilding its burned buildings, the architects being Messrs. Taylor & Hepburn. About \$24,000 will be the cost of the construction involved for the administration building. E. A. Goehring is the contractor. Messrs. Adams & Schwab, 859 Calvert Building, Baltimore, Md., are preparing the plans for the heating and ventilating of the hospital; steam heating; electric lighting; passenger elevator, etc.

Norfolk, Va.—Warehouse.—Southern Bagging Co. has awarded contract to E. L. Myers, Haddington Building, for erection of warehouses 180x166 feet; cost \$40,000 to \$50,000; plans and specifications by Breese & Mitchell.

Oxford, Miss.—University Building.—Reported that contract has been signed with Allen Bros. & Co. of Peoria, Ill., for erecting the science hall and other buildings, to cost \$67,000, for University of Mississippi.

Paducah, Ky.—Hotel.—J. R. Smith & Son will erect hotel building 44½x51.9 feet; ordinary construction; heating by steam from central plant; combination gas and electric-lighting fixtures; wiring for electricity; estimated cost \$5000; terrazzo and monolith floors; bath fixtures; marble front, etc.; date for opening bids not decided; A. L. Lassiter, architect for plans.

Panacea, N. C.—Hotel.—Panacea Springs Co. will build hotel 40x270 feet, with dining-room addition 40x80 feet; also will build cottages; about \$15,000 or \$20,000 to be expended. Address George S. Pritchard, manager, Greenville, N. C.*

Parkersburg, W. Va.—School Addition.—City has let contract to T. A. Black at \$5200.78 for erection of two-room and basement addition to school building.

Pensacola, Fla.—City Hall.—City has awarded contract to Charles H. Turner for erection of the proposed city hall; to cost not more than \$58,000.

Pine Beach, Va.—Hotel.—Powhatan Hotel Co. has been incorporated with capital stock of \$50,000 to build 200-room hotel; C. W. Teabault of Norfolk, president.

Plainview, Texas.—Business Block.—J. H. Wayland has awarded contract to Plainview Cement Stone Co. for stone work in connection with erection of business block 80x100 feet, to cost \$20,000; steam-heating plant; plans by J. C. Goodwin. (Mr. Wayland was recently reported as awarding contract for \$20,000 residence.)*

Princeton, W. Va.—Courthouse.—Mercer county will open proposals September 4 for erecting addition to courthouse. Plans and specifications will be on view until then. Call on or address W. P. Hawley and W. S. Foutz, Bluefield, or C. R. McNutt and A. W. Reynolds, Princeton, of the building committee.

Raleigh, N. C.—Masonic Temple.—The Masonic Temple Committee, Francis D. Winston, chairman, has been conferring during the week with architects C. K. Bryant and O. A. Robbins of Charlotte, N. C., relative to the completion of plans and specifications for the proposed Masonic Temple building.

Raleigh, N. C.—Jail Addition.—Wake County Commissioners have let contract to B. F. Smith Fireproof Construction Co., Pope Building, Washington, D. C., for erection of jail addition; fireproof construction; steam

heat; electric-lighting fixtures; cost \$10,000; architects, Barrett & Thomson, Raleigh.

Richmond, Va.—Station-house.—City has awarded contract to H. L. Matthews, 9 South 6th street, for construction of station-house mentioned last week; building to be of mill construction; combination gas and electric fixtures; no elevators; electric lights and call bells to be installed; no heating equipment in Mr. Matthews' contract; H. I. Hunt, 1007 East Main street, architect in charge; cost to be \$18,816.

Rome, Ga.—Jail.—Proposals will be opened October 2 for building fireproof jail in connection with present jail of Floyd county after plans and specifications on file and to be seen by prospective bidders. The rock jail now standing is to be improved and adapted to the plans; new building to be two stories high; stone, brick and steel; fireproof floors and ceiling; basement for fuel, furnace and prisoners; first floor proper to contain steel cages as shown in plans; second floor to contain rooms for steel cages, etc.; certified check for \$5000 required from each bidder. For full details write J. B. Cantrell, chairman of committee.

Salisbury, N. C.—Passenger Station and Express Depot.—Referring to passenger station to be erected by Southern Railway Co., Washington, D. C., and office and freight building to be erected by the Southern Express Co., 921 Pennsylvania avenue, Washington, D. C., the following contractors are estimating on construction: A. Lazenby, Salisbury, N. C.; J. A. Jones, Charlotte, N. C.; H. C. Morrison, Augusta, Ga.; Central Carolina Construction Co., Greensboro, N. C.; King Lumber Co., Charlottesville, Va.; J. D. Elliott, Hickory, N. C.; J. P. Pettijohn & Co., Lynchburg, Va.; and Grandy & Jordan, Greenville, S. C.; bids to be in September 26; Frank P. Milburn Company, architect, Home Life Building, 15th and G streets, Washington, D. C.

Salisbury, N. C.—Bank Building.—The People's Bank & Trust Co. has commissioned Frank P. Milburn & Co., Home Life Building, Washington, D. C., to prepare plans and specifications for bank building. Building contract will be let as soon as the plans are ready.

San Antonio, Texas.—Apartment-house.—Flood Walker, architect, is preparing plans and specifications for erection of apartment-house for local capitalists; structure to be three stories high; construction to begin as soon as plans are prepared.

San Antonio, Texas.—Hotel.—Charles M. Reeves of St. Louis, Mo., representing capitalists of that city, will erect modern hotel building.

Sewell's Point, Va.—Exposition Building.—Travelers' Protective Association, Virginia Division, plans to erect building to cost \$5000 at the Jamestown Exposition grounds; building to be 40x75 feet. Correspondence addressed care of Jamestown Exposition Co., Norfolk, Va., will probably reach the association's officers.

Sewell's Point, Va.—Office Building.—Jamestown Exposition Co., offices in Norfolk, is reported as having plans prepared for its proposed office building to be located on the exposition grounds.

Sewell's Point, Va.—Exposition Building.—Maryland Commission to Jamestown Exposition, Lynn R. Meekins, secretary, Fidelity Building, Baltimore, Md., is planning to arrange for the erection of the proposed Maryland Building, for which \$65,000 is available. Douglas H. Thomas of Baltimore is the architect.

Sewell's Point, Va.—Exposition Building.—W. P. Rose of Charlotte, N. C., is reported as to prepare plans for erection of cafe building at the Jamestown Exposition.

Sewell's Point, Va.—Exposition Building.—Sealed bids for the erection of the Missouri State Building at the Jamestown Exposition will be received Monday, September 10, at 11 A. M., at the Monticello Hotel, Norfolk, Va. Bids should be addressed to Henry T. Keat, president of the Missouri Commission. Plans may be seen at the office of G. T. Shepherd, secretary of the Jamestown Exposition Co.

Stanley, N. C.—Bank Building.—Merchants and Farmers' Bank of Stanley has received plans for erection of bank building.

St. Augustine, Fla.—Recreation Pier.—E. E. Boyce, Robert Ransom and others contemplate the construction of recreation pier abutting seawall; cost to be \$20,000.

St. Louis, Mo.—Hotel.—The Horn Hotel Co. will expend \$45,000 to enlarge four-story hotel into a seven-story structure with 120 rooms.

Terral, I. T.—School.—Bond issue of \$5000 for erecting school building has been approved and arrangements will be made to award contract. Address The Mayor.

St. Louis, Mo.—Hotel.—Incorporated: Travelers' Hotel Co. by H. A. Sugg, Kennett,

Mo.; H. F. Buner, A. P. Sugg and William H. Garland of St. Louis. The company is capitalized for \$30,000.

Tampa, Fla.—Business Block.—Shaw & Jay, architects, have prepared plans and specifications for the erection of business building for Tampa Wholesale Drug Co. Bids for construction will be invited in a few days.

Towson, Md.—Bank Building.—Second National Bank has awarded contract to Daniel Harding for the erection of bank building, and to the York Safe & Lock Co., York, Pa., for the construction of vaults to cost about \$9000; Wyatt & Nolting, architects, Builders' Exchange Building, Baltimore, Md.

Tupelo, Miss.—Railway Station.—Kansas City, Memphis & Birmingham Railway is reported as to build a \$20,000 station; C. R. Gray, general manager, St. Louis, Mo.; New York offices at 71 Broadway.

Vinita, I. T.—Auditorium.—The Auditorium Company, recently reported organized, etc., will build structure of frame, 65x109 feet; electric lighting and gas fixtures; natural-gas heating; complete Turkish-bath rooms in basement; bids for construction to be opened September 15; about \$30,000 the cost. Hall is to seat 500 and balcony 500, and seating is to be purchased. Barnett, Haynes & Barnett are the architects in charge, and L. F. Parker, Jr., is contractor in charge. Mr. Parker is president of company.*

Warrenton, N. C.—Courthouse.—Referring to courthouse to be erected, the following contractors are estimating on construction: E. L. Weaver, Warrenton, N. C.; Central Carolina Construction Co., Greensboro, N. C.; N. Underwood, Durham, N. C., and G. T. Stevenson, Knoxville, Tenn.; bids to be in September 15; Frank P. Milburn & Co., architects, Home Life Building, 15th and G streets northwest, Washington, D. C.

Washington, D. C.—Store Building.—R. E. Burks, 729 7th street northwest, has awarded contract to Piper & Kenyon, 729 15th street northwest, for the construction of store building at 7th and M streets northwest; three stories, 25x116 feet; brick with terra-cotta trimmings; steel beams, cast-iron columns; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; freight elevator; Oscar G. Vogt, architect, Corcoran Building, 15th and F streets northwest.

Washington, D. C.—Stores and Apartments.—J. Louis Loose, 13th and F streets northwest, has awarded contract to Blundon & Simon, 30 Quincy street, for the construction of stores and apartments at northeast corner 14th and R streets northwest; two stories; brick with stucco trimmings; structural iron and steel; tile roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; Hunter & Bell, architects, 1010 F street northwest.

Washington, D. C.—Dwelling.—O. G. Staples, Riggs House, 15th and G streets northwest, has awarded contract to John H. Nolan, 1413 G street northwest, for the construction of dwelling at 1234 16th street northwest; four stories and basement, 41x75 feet; brick with limestone trimmings; structural iron and steel; tin and tile roof; galvanized-iron cornice and skylights; tiling and mosaic work; metal ceilings; electric wiring and fixtures; sanitary plumbing; heating system; Spelden & Spelden, architects, 705 G street northwest.

Washington, D. C.—Restaurant.—Joel Hillman, 1015 Pennsylvania avenue northwest, has awarded contract to W. E. Spelr Company, 1342 New York avenue northwest, for remodeling three-story restaurant, 29x128 feet, at 1015 Pennsylvania avenue northwest, to cost about \$10,000; Henry J. Blauvelt, architect, 918 F street northwest.

Washington, D. C.—Dwellings.—Harry Wadman, builder, 717 14th street northwest, will erect nine two-story brick and stone dwellings at corner 11th and Irving streets northwest, to cost about \$50,000; A. H. Beers, architect, 717 14th street northwest.

Washington, D. C.—Dwellings.—The George P. Robinson Company, 613 14th street northwest, has awarded contract to R. X. Hazell & Bro., 627 H street northwest, for the construction of 10 semi-detached dwellings on 14th street heights, to cost about \$35,000; sanitary plumbing; electric and gas fixtures and hot-water heating systems will be installed; Sherman & Sonneman, architects, 13th and F streets northwest.

Washington, D. C.—Apartment-house.—Carl B. Keferstein, architect, 734 15th street northwest, will erect four-story brick and stone apartment-house, 50x135 feet, at 30th and Q streets northwest, to cost about \$25,000.

Washington, D. C.—Dwelling.—The National Safe Deposit, Savings & Trust Co., New York avenue and 15th street northwest, has awarded contract to Wm. P. Lipscomb

& Co., 146 F street northwest, for the construction of dwelling at northeast corner 16th and M streets northwest; four stories, 42x52 feet; brick with stone trimmings; structural iron and steel; sanitary plumbing; electric wiring and fixtures; heating system; cost about \$70,000; Bruce, Price & De Sibour, architects, 1135 Broadway, New York.

Washington, D. C.—Store Building.—Christian Heurich, 36th and D streets northwest, has awarded contract to Thomas H. Melton, 19 T street northwest, for reconstruction of store building at 1313 New York avenue northwest; electric and gas fixtures, sanitary plumbing, metal ceilings and heating system will be installed; Appleton P. Clark, Jr., architect, 605 F street northwest.

Washington, D. C.—Vaults.—Joel Hillman has secured permit for the erection of two proposed vaults at 1016 Pennsylvania avenue N. W.; Henry J. Blauvelt, architect, 918 F street N. W.; W. E. Speir Company, contractors, 1342 New York avenue N. W.; estimated cost \$3500.

Washington, D. C.—Dwellings.—Harry Wardman, builder, 717 14th street northwest, has secured permit for the erection of two two-story frame dwellings at 1503 and 1505 Decatur street northwest, and one two-story frame dwelling at 1502 Emerson street; Albert H. Beers, architect, 717 14th street; cost \$15,000.

Washington, D. C.—Store and Office Building.—Henry Schneider has begun work on proposed building to be erected at 1208 and 1210 Pennsylvania avenue northwest; structure to be four stories high, of brick; first floor to be fitted for stores and upper floors for offices; Arthur M. Poynton, 911 French street northwest, architect.

Washington, D. C.—Dwelling.—Harry Wardman, builder, 717 14th street northwest, has secured permit for the erection of proposed dwelling at 1410 Emerson street northwest, to cost about \$5000; Albert H. Beers, 717 14th street, architect.

Washington, D. C.—Dwelling.—Permit has been secured for the erection of proposed addition at 2000 14th street northwest for A. E. L. Leckie, Fendall Building, 34 D street northwest; structure to be three stories, of brick; Richardson & Burgess, Inc., contractors; Appleton P. Clark, Jr., architect, 605 F street northwest; estimated cost \$7000.

Weatherford, Texas.—Orphanage.—Knights of Pythias, George B. Griggs, grand chancellor, Houston, Texas, has awarded contract to Michael Solon for erection of orphanage after plans and specifications by Charles T. Page, Jr., of Austin, Texas.

Webster, Fla.—Warehouse.—Kimbrough Supply Co. will build a warehouse for fertilizers.

Wheeling, W. Va.—Church.—St. John's German Lutheran Church has let contract to Louis Hartoog & Son for erection of church, to cost \$82,000.

Wheeling, W. Va.—Hotel.—Hamm Bros. of Fulton, Ohio, have received contract for construction of proposed Woodlawn Hotel, to cost \$65,000; 120 rooms.

Whitesboro, Texas.—Residence.—J. W. Carey let contract to Calvin Marshall for erecting residence lately reported; two stories; acetylene-gas-lighting equipment; plans and specifications by Smith & Parr, South McAlester, I. T.; cost \$5000.

Whitesburg, Ky.—Bank Building.—Whitesburg State Bank will erect \$15,000 bank and office building. Address James P. Lewis, president.

Whitesburg, Ky.—School.—The Presbyterians will build a \$20,000 school building in East Whitesburg. Address Dr. Lyon, D. D., Whitesburg, Ky.

Whitesburg, Ky.—Jail.—Andrews Jail Works, Cincinnati, Ohio, has completed plans and specifications for building of Letcher county jail, to cost \$10,000.

Whitney, Texas.—Warehouse.—Chartered: Farmers' Union Warehouse Co., capital stock \$3000, by E. D. Tonailli, M. D. Fewell, J. R. Rose, J. N. Curbo and J. M. Simpson.

Winona, Miss.—School.—City's proposed school, mentioned last week, will be two stories high, 70x100 feet; ordinary construction; steam or hot-air heating; electric elevators; slate or steel roof; cost to be \$20,000; architect not yet engaged; Z. J. Scott, president school board.

Yokum, Texas.—Business Building.—Shropshire & Co. will erect business building three stories high, 61x100 feet; cement and stone; semi-fireproof; no heating plant; electric and gas fixtures; electric wiring; metal ceilings, metal stairs, etc.; cost \$14,000; this building reported last week.*

Yazoo City, Miss.—Theater.—Mr. Priestly is reported as organizing company with capital stock of \$25,000 to build theater.

Yazoo City, Miss.—City Hall.—City will open bids September 10 for erection of city hall and equipment of same with steam-heating plant, plumbing, electric wiring, etc., as per plans and specifications on file. Plans, etc., may be had and examined upon application to S. E. Barnwell or E. R. Holmes, mayor. For information address either of the two named or the architect, R. H. Hunt of Chattanooga, Tenn. (This building mentioned last week.)

Ybor City, Fla.—Business Block.—Jose Reina has awarded contract to F. G. Wayne for erection of two-story brick warehouse block, to cost \$7500.

RAILROAD CONSTRUCTION.

Railways.

Anniston, Ala.—Survey is reported begun for the extension of the Seaboard Air Line to Anniston via Jacksonville. V. E. McBea, assistant engineer, with headquarters in Birmingham, is in charge of the work.

Atlanta, Ga.—A charter has been granted to the Atlanta, Griffin & Macon Electric Railway Co., the line to be about 95 miles long, including side tracks and spurs. It will run from Atlanta to Macon via Forrest, Jonesboro, Lovejoy, Hampton, Sunnyside, Griffin and Forsyth. The incorporators are N. P. Pratt, W. A. Wimblish, Clifford L. Anderson, Edwin P. Ansley, Atlanta; W. J. Massee, J. T. Moore, Minter Wimberly, Macon; W. J. Kincaid, James M. Brawner, Seaton Grantland and N. P. Drewery of Griffin.

Atlanta, Ga.—The Atlanta & Carolina Railway Co., with \$50,000 capital, has been chartered to build a railway from Atlanta via Lithonia, Conyers, Lawrenceville, Hoschtown, Jefferson, Commerce, East Point, Fairburn, College Park, Palmetto, Newnan, Moreland, Grantville, Hogansville and Lagrange to West Point, 170 miles. The incorporators are M. T. Edgerton, M. Mason, E. W. Woods of Fulton, H. R. Hosch, Henry Braselton and L. F. Sell of Jackson county; A. J. Almand, A. E. Kimmel, Jr., and T. J. Clarke of De Kalb, and R. W. Tucker of Rockdale.

Batesville, Ark.—Mr. A. A. Webber, secretary Board of Trade, informs the Manufacturers' Record that survey has been made for the proposed Missouri, Arkansas & Southeastern Railway, 54 miles long, from Batesville to Black Rock, Ark. About 30 miles of right of way and terminal sites at each end are secured, and part of the locating survey is made. R. W. Earnheart of Batesville is promoter and president of the company, and is now occupied with the financial arrangements.

Beaumont, Texas.—The Beaumont, Sour Lake & Western Railroad is reported to have laid seven miles of track on its extension, and 16 miles more are being laid to the Trinity river.

Carthage, Mo.—President A. H. Rogers writes the Manufacturers' Record confirming the report that the Southwest Missouri Railroad Co. of Webb City, Mo., has been incorporated and has acquired the Western Missouri Electric Railway and the Webb City Northern Electric Railroad, comprising about 65 miles of electric railway already constructed and in operation; also that the company proposes to build important extensions. J. B. Hodgdon is chief engineer at Webb City and E. J. Pratt is electrical and mechanical engineer at the same place.

Charleston, S. C.—Notice is given that on September 24 subscriptions will be received by Legare & Holman, 39 Broad street, to the capital stock of the Charleston & St. Andrews Railway Co. The incorporators are George S. Legare, J. J. O'Connell and Duncan J. Baker.

Charlotte, N. C.—Mr. A. J. Moore, second vice-president and manager of the Carolina Mineral Railway Co., Waxhaw, N. C., informs the Manufacturers' Record that the line is partly built and work is still going on. It will probably be completed next year.

Chattanooga, Tenn.—Reported that the Southern Railway will enlarge the Citico yards to accommodate 500 more cars. F. M. Edwards is resident engineer at Chattanooga.

Coleman, Texas.—Reported that W. C. Vining and others propose to revive the charter for the Vining & Coleman Railway to build a railroad from Coleman to Waldrup, 30 miles. It is said that St. Louis capitalists are interested. Among those connected with the project at the time of its incorporation were Bird S. Coler and W. N. Coler, Jr., of New York, John D. McCall, William R. Hamby of Austin, F. A. Taylor of Houston and J. W. Martin of Lampasas, Texas.

Concord, N. C.—The Concord Realty & Railway Co. has been chartered to build electric railways in Concord and Charlotte and in the territory within a radius of 50 miles of Concord. The incorporators are R. A. Brown,

L. A. Brown and J. L. Brown of Concord, C. W. Johnson of Charlotte, N. C., and E. A. Johnston of Rock Hill, S. C.

Covington, Tenn.—The W. K. Palmer Company, engineers, Kansas City, Mo., writes the Manufacturers' Record confirming that they are engineers for the Memphis, Covington & Northern Railway, an electric line to run from Memphis, Tenn., to Covington, Tenn., about 35 miles, and then to Alamo and northern points, and also to Jackson, Tenn.

Dothan, Ala.—The Atlanta & St. Andrew's Bay Railway is reported complete for 31 miles from Dothan to Cottondale, Fla., and trains are being operated. The line will now be extended to St. Andrew's Bay, Fla.

Florence, Ala.—The Wayne County Railway Co. and the Mineral Belt Railway Co., both recently incorporated, will, it is said, be consolidated under the name of the latter. Engineers are now preparing plans for construction, the line to run from Florence to the State boundary and thence for 10 or 15 miles into Wayne county, Tenn. Thurston H. Allen of Florence and others are interested.

Franklin, N. C.—The Tallulah Falls Railway, on its extension from Dillard's to Franklin, 16 miles, is reported to have laid track to a point about four and one-half miles from Franklin.

Gainesville, Texas.—A letter to the Manufacturers' Record says that about eight miles of grading have been completed on the Interurban Railway to connect Gainesville with Whitesboro and Sherman, and the work is being pushed. G. A. Hassinger and associates of New Orleans, La., are interested.

Gainesville, Fla.—Reported that contract has been let to W. H. Jones of Mayo, Fla., to grade 32 miles of the proposed Tampa & Jacksonville Railway, work to begin by September 1. The contract covers line from the Crystal river via Brooksville to the Withlacoochee river on the route to Tampa. The line was formerly the Gainesville & Gulf Railway. C. N. Atkinson is general manager at Gainesville.

Galveston, Texas.—It is reported that the Santa Fe will relay its line between Galveston and Houston with 85-pound steel rails, work to begin immediately. C. F. W. Felt is chief engineer at Galveston.

Grayson Springs, Ky.—The Illinois Central Railroad is reported to have purchased the Grayson Springs and proposes building an electric line from the railroad to the springs. A. S. Baldwin is chief engineer at Chicago, Ill.

Greenville, Miss.—The Greenville & Leland Electric Interurban Railroad Co. has organized to build its proposed line from Greenville to Leland, 10 or 12 miles. The directors are J. R. Robertshaw, W. E. Hunt, Henry Crittenden, Arthur Hider, Alfred Shields, E. A. Dalton, Morris Rosenstock, Edward Holland, John L. Hebron, Jr., Nathan Goldstein and W. A. Evernam.

Greenville, S. C.—The Saluda Valley Railroad Co. is reported to be pushing construction on its line from Greenville to Marietta. W. H. Paterson of Atlanta and O. K. Mauldin of Greenville are interested.

Hattiesburg, Miss.—The Hattiesburg & Mammoth Springs Railroad Co. has been organized to build an electric railway to Mammoth Springs, about 10 miles. The incorporators are E. F. Ballard, J. B. Wetherbee, J. S. P. Pitts, J. R. S. Pitts, S. O. Pitts and others.

Hiwasee, Miss.—The Hiwasee & Tombigbee Railroad Co. has applied for a charter to build a branch of the Mobile & Ohio Railroad from Hiwasee to Womack Hill, about 35 miles, to develop timber lands. Among the incorporators are E. L. Russell, vice-president and general counsel of the Mobile & Ohio at Mobile, Ala., and Adolph Hiller of Youngstown, Ohio.

Jasper, Ala.—The Alabama Central Railway is reported to have let contract for building the eight-mile extension from Jasper. It is stated that the line may later be extended into Winston county. Albert Russell is vice-president and general manager.

Jefferson, N. C.—Governor Glenn is reported to be in favor of an electric railway from Jefferson, in Ashe county, to Wilkesboro, in Wilkes county, and is quoted as saying that he will co-operate with citizens of both counties to secure the construction of such a line.

Johnson City, Tenn.—Reported that the Southern Railway will spend about \$50,000 to enlarge its yards at Johnson City. T. H. Gatlin is engineer maintenance of way at Knoxville, Tenn.

Kansas City, Mo.—Mr. Willard E. Winner, president of the Development Corporation of St. Louis, writes from St. Louis, Mo., to the Manufacturers' Record confirming the report of the charter of the Electric Terminal Railway of Kansas City. The following officers have been elected: President, John Mayer, president of the Mayer Coal Co.; vice-presi-

dent, George H. Kahmann of the railroad contracting firm of Kahmann & McMurray; treasurer, Henry G. Pert, formerly president of the Interurban Railway; treasurer, Baylis Steele.

Knoxville, Tenn.—W. J. Spradlin has taken a subcontract under W. J. Oliver & Co. to build the Southern Railway Co.'s spur from Knoxville to the marble quarries, two miles.

Knoxville, Tenn.—The Southern Railway Co., it is reported, has let contracts to W. J. Oliver & Co. of Knoxville for excavating at Charlotte, N. C., for new yards at Spencer, N. C., and for building line from the tunnel under Lookout mountain into Chattanooga, Tenn.

Lancaster, Texas.—Reported that the Houston & Texas Central Railroad has purchased the Lancaster Tap Line from George M. Thornton of East Orange, N. J. The road is five miles long, from Hutchings Station to Lancaster. It is not stated whether any new construction will be undertaken. L. A. Cottingham is engineer maintenance of way of the Houston & Texas Central at Houston, Texas.

Lawton, O. T.—Reported that the Kansas City, Lawton & Pacific Railway has placed its bonds through W. K. Burton & Co. of Memphis, Tenn. The issue is \$6,250,000 of 4 per cents.

Lexington, Ky.—The Central Kentucky Traction Co. has been granted a franchise in Winchester for its proposed line from Lexington to Winchester, which is to be completed and in operation within 18 months. R. T. Gunn is general manager. Construction is expected to begin this fall.

Lexington, Ky.—It is proposed to build an electric railway from Lexington to North Middletown, about 20 miles. Among those reported interested are Mayor Thomas A. Combs, F. A. Bullock, John Skain, Dr. R. B. Waddy, J. Waller Rodes, D. F. Frazee and others.

Linden, Ala.—The Louisville & Nashville Railroad is reported to be surveying for a line from Linden to Demopolis, about 15 miles, to connect with the cement plants there. T. S. Johnston is assistant engineer at Montgomery, Ala.

Little Rock, Ark.—Reported that construction will begin immediately at Lishi, Ark., on 16 miles of a railroad which will run to Little Rock. James P. Ward, general superintendent of the H. D. Williams Coal Co. at Lishi, is said to be directing the work. The line is to connect with the Missouri & Arkansas Railroad at Leslie, Ark., and is soon to be extended to Little Rock.

Louisville, Ga.—The Augusta & Louisville Railway Co. has been chartered to build a line from Louisville to connect with the Augusta & Florida Railroad, about 23 miles. The incorporators are R. M. Murphee, J. C. Stone, W. D. Chance, I. F. Willis, B. C. Brack, J. B. Murphee, R. H. Burton, M. D. Jones and Allen W. Jones of Midville; H. J. Peel of Vidette.

Madisonville, Ky.—Reported that the Madisonville, Hartford & Eastern Railroad now being built to Mitchell will be extended to Cloverport, Ky. The headquarters of the road are at Madisonville.

Manning, Texas.—C. G. Gribble, secretary and treasurer of the Shreveport, Houston & Gulf Railway, is reported as saying that nine miles have been completed from Prestridge to Manning. The line is to be continued eventually to Houston, 100 miles, via Kelley. No further work is now being done. W. T. Carter of Houston, Texas, is president; G. A. Kelley of Lufkin is vice-president, and L. D. Garrison of Manning, Texas, is auditor and traffic manager.

McComb City, Miss.—Construction on the Liberty-White Railroad from McComb City to Holmesville, 12 miles, is reported completed, and it is expected to be put in operation early in September. J. T. Burke is chief engineer at McComb City.

Mill Creek, W. Va.—Tolbard & Spiker will, it is reported, rebuild six miles of railroad recently destroyed by a cloudburst.

Natchez, Miss.—Thomas Reber is reported as saying that surveys have been made for the proposed railroad represented by him and W. A. S. Wheeler; line to run from Natchez via Woodville, Miss., and Clinton, La., to New Orleans, about 160 miles. They are also interested in the proposed Vicksburg, Natchez & Gulfport Railroad. It is said that a trunk line is back of their proposition to reach New Orleans.

New Orleans, La.—Reported that the Kansas City Southern Railroad has applied to the Belt Railroad Commission for permission to enter New Orleans, and that it proposes to build an extension to this city. A. F. Rust is chief engineer at Kansas City, Mo.

New Orleans, La.—The New Orleans Great Northern Railroad, incorporated separately

in Louisiana and Mississippi, has consolidated its two companies, retaining the same name. The capital is \$2,500,000, of which \$100,000 of stock has been issued. There have also been issued \$1,940,000 of 5 per cent. bonds. The directors are Frank H. Goodyear, Charles W. Goodyear, Buffalo, N. Y.; Martin E. Olmstead, Harrisburg, Pa.; Chas. I. James, Baltimore, Md.; Isaac C. Enoch, Jackson, Miss.; E. H. Farrar, New Orleans; Charles K. Mullings, N. G. Pearson, Covington, La.; George M. Whitney, Harrisburg, Pa.

Newport, Ark.—Mr. M. M. Stuckey of Newport, attorney for the company, informs the Manufacturers' Record that the Wynne, Newport & Western Railway, capital \$250,000, with \$30,000 subscribed, proposes building a 35-mile line from Wynne, Ark., to Newport, Ark. Connections will be made with the Cotton Belt at Fair Oaks, the Iron Mountain at Wynne and the Rock Island and Iron Mountain at Newport. The officers are O. N. Killough, president, Wynne, Ark.; Isaac Goldman, vice-president, St. Louis, Mo.; W. H. Barnes, secretary, Wynne, Ark.; Edmund Wolf, treasurer, St. Louis, Mo.

New Orleans, La.—H. V. Mielly, right-of-way agent, is reported as saying that actual construction will begin about December 1 on the proposed New Orleans & Baton Rouge Electric Railway, which will be about 90 miles long. C. S. Young, representing Abadie & Co. of St. Louis, has charge of the engineering. W. Osgood Orton is promoter and chief engineer at New Orleans.

Onelda, Tenn.—The Tennessee Railway is reported to have awarded contract to Watson, Wilson, Rhodes & Co. of Knoxville for building a 20-mile extension. W. O. Dyer is chief engineer at Huntsville, Tenn.

Parkersburg, W. Va.—The Baltimore & Ohio Railroad, it is reported, will build 10 or 12 tracks in its yard at Parkersburg and also construct a number of other lines at its terminals here. D. D. Carothers is chief engineer at Baltimore, Md.

Pearisburg, Va.—Reported that the Giles County Electric Railway Co. has secured sufficient stock subscriptions and it is expected that construction will begin immediately. The directors are Charles T. Painter, president; T. J. Pearson, vice-president; M. P. Farrier, secretary and treasurer; Martin Williams, John W. Williams, Barnard Mason and J. H. Woodrum.

Pennington Gap, Va.—Both the Louisville & Nashville Railroad and the Virginia & Southwestern Railway have begun work on their proposed extensions to the Black Mountain coal fields.

Pikeville, Ky.—Reported that the Chesapeake & Ohio Railway will build two short branches up Long Fork and Beaver creek, respectively, to coal and timber properties. Surveys have been made. H. Pierce is engineer of construction at Richmond, Va.

Pine Bluff, Ark.—An officer of the proposed Arkansas, Louisiana & Gulf Railroad is reported as saying that the line which is to run from Pine Bluff via Monticello and Hamburg, Ark., and Bastrop, La., to Monroe, La., 150 miles, will have 100 miles in Arkansas and 50 miles in Louisiana. Survey has been made from Pine Bluff to Hamburg, 85 miles, and is in progress from Hamburg to Monroe. Construction contracts are expected to be let in October. The officers are Alfred Cowles, president, Chicago; P. B. Stewart, vice-president, Colorado Springs, Col.; J. M. Parker, general manager, Pine Bluff, Ark.; E. A. Sunderlin, secretary and treasurer, Colorado Springs; L. M. Pope, assistant engineer, Pine Bluff.

Port Arthur, Texas.—An officer of the Southern Pacific informs the Manufacturers' Record that no definite conclusions have been reached concerning the proposition to build a line into Port Arthur.

Romney, W. Va.—C. Spates Brady of Romney is reported to be making a survey for a railroad from Romney via Moorefield to Petersburg, W. Va. The United States Leather Co. is said to be interested.

Savannah, Ga.—Mr. John Hardy Purvis, 4 East Bryan street, informs the Manufacturers' Record that he desires to build 35 or 40 miles of tramroad in the southwestern part of Georgia, and would like to get in communication with parties who would consider such construction.

Statesboro, Ga.—A. E. Hess of Augusta, chief engineer, is reported to be surveying for the Augusta, Florida & Southern Railway from Summit to Statesboro.

Versailles, Ky.—Construction is reported begun on the Interurban Electric Railway from Versailles to Frankfort. George McLeod is engineer.

Wheeling, W. Va.—Reported that the Pennsylvania Company will build another track on the Panhandle line at Wheeling in order to continue the double track for a greater

distance. Thomas Rodd is chief engineer at Pittsburg, Pa.

Street Railways.

Columbia, S. C.—Stock subscriptions are to be received, beginning September 25, by Walker, Ravenel & Co. for the stock of the proposed Suburban Transit Co. recently chartered by Julius H. Walker, Ambrose E. Gonzales, J. Sumter Moore and Bruce W. Ravenel.

Dallas, Texas.—The municipal commission has approved the street-railway franchise granted to J. Mercer Carter and associates. Mr. Carter is reported as saying that he will shortly begin laying track in Dallas.

Dallas, Texas.—Mr. Edward T. Moore, general superintendent of the Consolidated Railway, is reported as saying that the Ervay-street line will be extended to the city limits.

Denton, Texas.—The city council has granted a franchise to Newt M. Lee and associates for a street railway.

Fayetteville, N. C.—The Fayetteville Street Railway & Power Co. has been chartered to build a street railway in Fayetteville and to operate electric lines within a radius of 50 miles. The incorporators are W. D. McNeill, J. F. Harrison, D. E. Kindley, John H. Anderson and S. H. Melroe, all of Fayetteville.

Kansas City, Mo.—The Brooklyn-avenue extension of the Metropolitan Street Railway is reported to be in operation.

Lawton, O. T.—Application for a street-railway franchise has been made by F. M. Posegate, B. F. Bowman, Mike Rafter, A. Thompson and C. W. Rowland of St. Louis, Kansas City and St. Joseph, Mo.

Mineral Wells, Texas.—Edmund Burke, chief engineer of the Howard-Burke Engineering Co., New York, is reported as saying that rails for eight miles of track and the necessary ties have been received for the electric railway in Mineral Wells; also that work has begun on the power plant.

Muskogee, I. T.—The Muskogee Traction Co. will, it is reported, spend \$100,000 for improvements this fall.

Richmond, Va.—The Virginia Passenger & Power Co. will build a double-track extension to the State Fair grounds.

Tampa, Fla.—President T. H. Synon of the Tampa-Sulphur Springs Traction Co. and General Manager H. H. Kirkpatrick are reported as saying that by November 15 the line will probably be completed and put in operation. Work is now in progress.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Boiler.—See "Engine and Boiler."

Boiler.—Royal Lumber Co., Royal, La., wants boiler for 35-horse-power engine.

Boiler.—W. R. Kline, Reliance, Va., wants prices on 50 or 60-horse-power return-flue boiler.

Boiler.—American Confectionery Co., Nashville, Tenn., wants prices on 125-horse-power boiler.

Boiler.—L. D. Sampson, 140 Dearborn street, Chicago, Ill., wants estimates on boilers for 120-horse-power engine. (See "Engine and Boiler.")

Boilers.—Bryan Light & Water Co., Bryan, Texas, will buy boilers.

Boilers.—International Cottonseed Oil Co., Selma, Ala., wants prices on boilers.

Boilers.—Bernard Thyson, Warrenton, Va., wants proposals on two new return-tubular boilers of 125 horse-power each, working pressure 125 pounds to square inch.

Bottling Machinery.—Phos Pho Celery Co., Spartanburg, S. C., will need some bottling machinery.

Box Machinery.—Ben F. Perry, Canton, Ga., wants machinery for manufacturing boxes.

Brick Machinery.—J. L. Townsend, McDonalds, N. C., wants stiff-mud brick machine for daily output of 25,000.

Bridge.—Bids will be opened September 6 for construction of concrete bridge after plans and specifications on file with city engineer; J. T. Walsh, acting mayor, Memphis, Tenn.

Bridge Construction.—Sealed proposals will be received by Board of Commissioners of Roads and Revenues of Floyd County, Rome, Georgia, till October 2 for furnishing and erecting bridge over Little Cedar creek near Vann's Valley Station, on the Foster Mill road. Said bridge will consist of one steel span of 60 feet on pier centers and supported on steel lattice legs 8 feet long under floor beam at one end and 10 feet long under other end, said legs to rest on concrete pedestals. The approaches to said bridge will be wood trestlework, 40 feet long, more or less, at one end, 10 feet long, more or less, at the other end; width of roadway 12 feet clear. Bidders will name price complete and ready for use on the steel span and a price for 1000 feet board measure for trestle approach or approaches for all lumber left in place. By order of the board; J. F. Hillyer, clerk.

Bridge Work.—Sealed bids will be received at office of secretary of Shelby County Levee Commission, Room 10 Odd Fellows' Building, Memphis, Tenn., up to September 3, for following bridge work: Raising steel span (165 feet long) of county bridge over Loosahatchie river on Randolph road, near Woodstock, about 10 feet above present grade; also raising steel span of Nonconah bridge on Horn Lake road at New South Memphis about 4.5 feet above present grade, and building two concrete shore piers and two 18-foot steel approaches. For information apply to Chas. A. Barton, engineer for commission.

Building Materials.—Panacea Springs Co., George S. Prichard, Greenville, N. C., wants doors, windows, blinds, paint, bathtubs, etc., for hotel.

Building Supplies.—Shropshire & Co., Yorkum, Texas, want prices on metal ceiling, roofings, columns, windows, doors, metal stairs, etc.

Building Supplies.—Simons-Mayrant Company, Charleston, S. C., will be in market for cream-colored press brick, structural steel, structural and ornamental ironwork, metal window frames and metal sash, metal fireproof doors and enamel brick for \$150,000 building.

Building Supplies.—King Lumber Co., Charlottesville, Va., wants bids on iron and steel, press brick, cement and electric wiring for \$70,000 temple at Newbern, N. C.

Cement.—King Lumber Co., Charlottesville, Va., wants bids on cement; delivery at Newbern, N. C.

Cement.—Rhode Island Company, Spray, N. C., is in market for Portland cement in carload lots.

Cement-block Machinery.—Thomas J. Rowe, Board of Trade Building, Norfolk, Va., wants addresses of makers of machinery for manufacturing cement blocks for house-building.

Cement Flooring.—See "Fireproof Flooring."

Concrete-block Machinery.—See "Mixers."

Concrete-block Machinery.—Burton Hampton, North 6th street and Vandalia Railroad, Terre Haute, Ind., desires catalogues of concrete-block machinery, mixers, etc.

Concrete Construction.—W. W. Alfred, architect, Box 261, Pensacola, Fla., wants catalogues and prices on reinforced-concrete construction; also on reinforced steel.

Construction Work.—Sealed proposals for jetty and dike construction at mouth of Mantua creek, New Jersey, will be received until September 24 and then publicly opened; information on application; C. A. F. Flagler, major, engineers, U. S. A., Wilmington, Del.

Conveyors.—See "Mixers."

Cotton Machinery.—Tatum & Smith, Center, Ala., wants prices on machinery for spinning two or three bales of cotton daily into thread for making rope or duck; also on machinery for making the thread into rope and into duck. Want to know amount of horse-power required and number of operators needed.

Distilling Equipment.—Frank Walker, Abbeville, La., will want general line of distilling equipment.

Dredging.—United States engineer office, Mobile, Ala., will receive sealed proposals for dredging in harbor until noon September 22. Information furnished on application; J. B. Cavanaugh, captain, engineers.

Dryer.—S. E. Crowley, 1235 Boardwalk, Atlantic City, N. J., wants dryer of 50 tons capacity per 10 hours. Quote prices delivered at Langley, S. C.

Electrical Equipment.—American Confectionery Co., Nashville, Tenn., wants prices on dynamo and 15 motors.

Electrical Equipment.—Panacea Springs Co., George S. Prichard, manager, Greenville, N. C., wants prices on electrical equipment, dynamo, etc.

Electrical Machinery.—South Georgia Land & Industrial Co., Milltown, Ga., is interested in electrical and water-power developing machinery; correspondence invited.

Electric Fixtures.—George J. Glover, Hibernia Bank & Trust Building, New Orleans, La., wants electric fixtures for \$350,000 office building.

Electric-light Plant.—Banks & Taylor, Coal Creek, Tenn., want prices on dynamos, boiler and engine for electric-light plant.

Electric-light Plant.—Bids will be received for furnishing all line material and accessories and for installing complete series alternating current arc system of electric light; also for furnishing and laying 12,000 lineal feet of four-inch water mains, with 40 fire plugs. Bids must be in by September 3. Plans and specifications may be seen by applying to O. E. Hopkins, chairman water and light committee, Lafayette, La.

Electric-light Plant.—Greer County Farmers' Gin Co., Mangum, O. T., wants electric-lighting plant of 25 lights.

Electric Plant.—W. M. Riggs, Clemson College, S. C., will buy equipment for electric plant.

Electric Wiring.—See "Mechanical Equipment."

Electric Wiring.—King Lumber Co., Charlottesville, Va., wants bids on electric wiring for \$70,000 temple at Newbern, N. C.

Elevator.—American Confectionery Co., Nashville, Tenn., wants prices on electric elevator.

Elevators.—See "Mechanical Equipment."

Elevators.—George J. Glover, Hibernia Bank & Trust Building, New Orleans, La., wants estimates on electric elevators for \$350,000 office building.

Engine.—Louisiana Milling Co., Louisa, Ky., wants 60 to 100-horse-power engine.

Engine.—E. R. Rector, Haymarket, Va., will use two to three-horse-power gasoline engine. (See "Ice Machinery.")

Engine.—Water commissioners of city of Henderson, Ky., will probably buy an engine this fall.

Engine and Boiler.—L. D. Sampson, 140 Dearborn street, Chicago, Ill., wants estimates on 120-horse-power engine and boiler.

Engine and Boiler.—Royal Lumber Co., Lumber, La., wants 35-horse-power engine and boiler.

Engine and Boiler.—Banks & Taylor, Coal Creek, Tenn., want prices on engine and boiler for electric-light plant.

Engines.—See "Traction Engines."

Engines and Boilers.—Louisiana Milling Co., Louisa, Ky., wants prices on engines and boilers.

Excelsior Machinery.—Ben F. Perry, Canton, Ga., wants machinery for manufacturing excelsior.

Fan System.—See "Heating Plant."

Fertilizer Machinery.—W. F. Butler, Maiben, Miss., wants machinery for manufacturing fertilizers; also wants general information.

Fertilizer Machinery.—Neisler & Newsom, Reynolds, Ga., want fertilizer-mixing machinery.

Fireproof Flooring.—T. T. Dixon, governor of National Home for Disabled Soldiers, National Soldiers' Home, Virginia, wants information regarding laying of a fireproof floor of cement or other material.

Fireproof Specialties.—See "Building Supplies" mentioning Simons-Mayrant Company.

Floor Dresser.—J. J. Keller & Co., Yorkville, S. C., wants a floor dresser; a machine operated similar to a lawn mower for trimming wood floors.

Flouring Machinery.—Louisiana Milling Co., Louisa, Ky., wants prices on flouring machinery.

Ginnery Tools.—Greer County Farmers' Gin Co., Mangum, O. T., wants gin-saw flier.

Handles.—Atlanta Plow Works, Atlanta, Ga., wants 75,000 to 100,000 plow handles and beams.

Heating and Ventilating.—See "Mechanical Equipment."

Heating Equipment.—See Building Note under Houston, Texas, referring to buildings for city of Houston, Texas.

Heating Plant.—Andrew J. Bryan, Henne Building, New Orleans, La., wants catalogue of heating plants and fan system.

Heating Plant.—George J. Glover, Hibernia Bank & Trust Building, New Orleans, La., will want heating equipment for \$350,000 office building. Probably Webster or Paul system will be selected.

Ice Machine.—American Confectionery Co., Nashville, Tenn., wants prices on 10-ton ice machine.

Ice Machinery.—E. R. Rector, Haymarket, Va., wants prices and particulars of small refrigerating or ice-making machine to be operated by gasoline engine of two to three horse-power.

Ice Plant.—Emmet Vaughan, Des Arc, Ark., will buy 10-ton ice plant.

Ice Plant.—McDowell Ice & Cold Storage Co., Keystone, W. Va., will want complete 20-ton ice plant, except boilers.

Ironwork.—Simons-Mayrant Company, Charleston, S. C., will be in the market for structural steel and for structural and ornamental ironwork for \$150,000 building.

Iron Work.—Matthew & O'Brien, Southern Building, Wilmington, N. C., want catalogues on cages and other jail work.

Jetties and Dikes.—See "Construction Work."

Knitting Machinery.—Goldsboro Knitting Mills, Goldsboro, N. C., wants prices on machinery for knitting 250 dozen pairs of hose daily.

Lath Machinery.—Ben F. Perry, Canton, Ga., wants machinery for manufacturing laths.

Laundry Machinery.—Laundry, Box 398, Winston-Salem, N. C., wants information and prices on laundry machinery.

Levee Work.—Sealed proposals for about 14,000 cubic yards levee work will be received by Red Fork Levee Board until September 25. Any information regarding the work will be furnished on application to J. E. Peoples, Red Fork, Ark.

Levee Work.—United States engineer office, 332 Prytanian street, New Orleans, La., will receive sealed proposals for constructing about 245,000 cubic yards of levee work in the Pontchartrain levee district until 11 o'clock A. M. September 11, and then publicly opened. Information furnished on application; J. F. McIndoe, captain, engineers.

Lock Construction.—Sealed proposals for the construction of a lock at the head of Bayou Lafourche, La., will be received up to October 1 at office of board of State engineers of Louisiana, 402 Cotton Exchange Building, New Orleans, La., and then publicly opened. Information will be furnished by the undersigned or by the board on application; J. S. Brady, chairman executive committee joint organization Atchafalaya basin and Lafourche levee districts, 401 Cotton Exchange Building, New Orleans.

Lumber.—Sealed proposals, in triplicate, will be received at office of general purchasing officer, Isthmian canal commission, Washington, D. C., until September 8 for furnishing 8,510,000 feet of lumber; blanks and full information (Circular No. 35) from office or offices of assistant purchasing agents, 24 State street, New York city; Custom-House, New Orleans, La.; also from chief quartermaster, Department of the Lakes, Chicago; depot quartermaster, St. Louis; depot quartermaster, Jeffersonville, Ind.; chief quartermaster, Department of the Gulf, Atlanta, Ga., and the Commercial Club, Mobile, Ala.; D. W. Rose, general purchasing officer.

Lumbering Equipment.—John Hardy Purvis, 4 East Bryan street, Savannah, Ga., will purchase equipment for cutting 300,000 cross-ties.

Machine Tools.—See "Roll Grinder."

Mechanical Equipment.—Sealed proposals in triplicate will be received until October 11 for constructing plumbing, drainage, gas-piping, heating, and ventilation, electric conduits and wiring system, electric elevator plant and vacuum-cleaning system for Walter Reed Army General Hospital, Army Hospital Grounds, Washington, D. C. Information can be obtained by applying at Washington or to depot quartermasters at New York, Philadelphia, St. Louis and Chicago. Envelopes containing proposals must be marked "Proposals for Constructing, etc., Army General Hospital," Washington, D. C., and addressed to Capt. A. W. Butt, quartermaster, Washington, D. C.

Metal Windows, etc.—See "Building Supplies" mentioning Simons-Mayrant Company.

Metal Work.—Shropshire & Co., Yorkum, Texas, want prices on metal stairs, metal ceilings, etc.

Mill Supplies.—Louisia Milling Co., Louisa, Ky., wants prices on mill supplies.

Mixer.—See "Fertilizer Machinery."

Mixers.—See "Concrete-block Machinery."

Mixers.—Plainview Cement Stone Co., Plainview, Texas, is in market for mixers, tampers and conveyors.

Paving.—Sealed bids will be received at office of city register, Memphis, Tenn., until September 6 for (1) grading Poplar street from Garland avenue to Tucker avenue,

amounting to approximately 20,000 cubic yards; (2) furnishing all materials and labor and constructing 36-inch vitrified-brick gutter on concrete foundation along each side of Poplar street from Garland avenue to Tucker avenue, amounting to approximately 3500 square yards of paving; also for furnishing all labor and materials and constructing two reinforced concrete culverts across Poplar street, approximating 100 lineal feet each; (3) furnishing, hauling, spreading and rolling cementing gravel on the street as prepared under proposals (1) and (2) above. This item will require approximately 3000 cubic yards of gravel. Plans and specifications on file in office of city engineer, and each contract will include any incidental work which may be ordered by city engineer for the compensation mentioned in specifications; J. T. Walsh, acting mayor.

Paving.—Baltimore (Md.) Board of Awards, City Hall, will receive bids until September 11 to curb, grade and pave with granite blocks, bitulithic or vitrified brick. York road from North avenue to city limits. Specifications and proposal sheets may be obtained from Commissioners for Opening Streets, J. Arthur Wickham, president, Hoen Building, Lexington and Holliday streets.

Paving Work.—City of Uniontown, Ala., will open bids September 10 for street improvements: laying 40,000 square yards of crushed limestone, 10,000 cubic yards of grading, 700 lineal feet of curbing of granite, 1000 lineal feet of 12-inch terra-cotta pipe; plans and specifications on view at office of city clerk, Uniontown, and office of S. E. Washburn, engineer in charge, Montgomery, Ala.

Paving Work.—Bids will be received at office of Board of Public Works, City Hall, Paducah, Ky., until September 5 for construction work as per plans and specifications on file at the city engineer's office.—Grading and graveling Sowell street from Ashbrook avenue to Hays avenue; Sowell street from Ashbrook avenue to Ashcraft avenue; Hays avenue from Sowell street to Bridge street; L. A. Washington, city engineer.

Paving Work.—Town of Newton, Miss., will award contract soon after September 5 for about 6500 lineal feet of concrete sidewalk, five and seven feet wide, together with inclines, steps and driveways, according to specifications in office of city manager; Chas. L. Wood, city manager.

Paving Work.—Sealed proposals for paving McIntosh street with vitrified brick will be received at the office of the mayor of Elberton, Ga., until September 4. A certified check of 5 per cent. of bid, made payable to treasurer of city, must accompany each bid; B. I. Thornton, mayor.

Paving Work.—Sealed proposals will be received at office of city clerk, Portsmouth, Va., until September 20 for furnishing and setting 6900 lineal feet, more or less, of five-inch granite curbing, and furnishing materials and paving with vitrified bricks 14,000 square yards, more or less. Blank forms and instructions to bidders, together with specifications for the work, can be obtained upon application at office of city engineer; E. B. Hawks and Samuel T. Montague, chairman street committee; Bascom Sykes, city engineer.

Paving Work.—Sealed bids will be received until September 6 for (1) grading Poplar street from Garland avenue to Tucker avenue, amounting to approximately 20,000 cubic yards; (2) furnishing materials and labor and constructing 36-inch vitrified-brick gutter on concrete foundation along each side of Poplar street from Garland avenue to Tucker avenue, amounting to approximately 3500 square yards of paving; also for furnishing all labor and materials and constructing two reinforced concrete culverts across Poplar street, approximating 100 lineal feet each; (3) furnishing, hauling, spreading and rolling cementing gravel on the street as prepared under proposals (1) and (2) above. This item will require approximately 3000 cubic yards of gravel. Plans and specifications on file in office of city engineer, and each contract will include any incidental work which may be ordered by city engineer for compensation mentioned in specifications. Each proposal must be accompanied by certified check for \$250, payable to city of Memphis. Usual rights reserved. By order of Board of Fire and Police Commissioners; J. T. Walsh, acting mayor.

Pin (Wood) Machinery.—Crutcher Bros., Pulaski, Tenn., want machinery for manufacturing insulator pins.

Pipe Organs.—Andrew J. Bryan, Hennen Building, New Orleans, La., wants catalogues of pipe organs for \$45,000 church.

Planer.—W. H. Sloan, 714 Keogh street, Greensboro, N. C., wants prices on 24x6 or 30x6 planer.

Plumbers' Supplies.—Panacea Springs Co.,

George S. Prichard, manager, Greenville, N. C., wants prices on bathtubs for hotel.

Plumbing.—See "Mechanical Equipment."

Plumbing and Heating System.—Mayor and city council of Columbus, Miss., H. M. Waddell, secretary, will receive bids until September 4 for plumbing and heating school building according to plans and specifications on file; certified check covering 10 per cent. of bid required. Usual rights reserved.

Power Plant.—Plainview Cement Stone Co., Plainview, Texas, is in market for power plant.

Pumps.—Bryan Light & Water Co., Bryan, Texas, will want pumps.

Railway Equipment.—Panacea Springs Co., George S. Prichard, manager, Greenville, N. C., wants prices on trolley cars and rails for same.

Railway Equipment, etc.—John Hardy Purvis, 4 East Bryan street, Savannah, Ga., wants to correspond relative to planning, constructing and equipping lumber and passenger tram railway from 35 to 40 miles long.

Railway Equipment.—Wyland Newman Machine Co., Greensboro, N. C., wants five miles of 25 to 30-pound relaying rails, delivered in Stovall, N. C. Quote dealers' prices.

Railway Construction and Equipment.—South Georgia Land & Industrial Co., Milltown, Ga., is interested in construction and equipment of electrical railway. Correspondence is invited.

Roll Grinder.—W. H. Sloan, 714 Keogh street, Greensboro, N. C., wants prices on second-hand mill-roll grinder.

Roofings.—Shropshire & Co., Yorkum, Texas, want prices on roofings.

Roofing and Supplies.—W. S. Divver, Anderson, S. C., will want roofers' supplies, tools, etc.

Safes.—Goldsboro Knitting Mills, Goldsboro, N. C., wants prices on safes.

Sash Machinery.—Charles Roehlig, Hartford, Ala., wants to correspond with makers of machinery for manufacturing sash.

Sawmill.—Royal Lumber Co., Royal, La., wants sawmill equipment; capacity 40,000 feet.

Sawmill Machinery.—S. R. Lown, Norfolk, Va., will probably buy some saw-milling machinery.

Seating.—John Osolinach, Bay St. Louis, Miss., wants seating for theater—opera chairs.

Seating.—The Auditorium Company, L. F. Parker, president, Vineta, I. T., wants prices on seating for 800 persons.

Sewerage System.—Baltimore (Md.) Board of Awards will receive bids until September 19 for building storm-water drains, the work to consist of approximately 43,250 lineal feet of 12 to 66-inch drains, 6120 lineal feet of 12-inch inlet connections, 220 manholes, 10 drop manholes and 232 inlets. Specifications and plans may be obtained from office of sewerage commission, 904 American Building, Baltimore and South streets, Baltimore, Md.

Sewers.—On September 10 bids will be opened for constructing sanitary sewers in district No. 9, city of Pine Bluff, Ark.; will require about five miles of main eight-inch pipe; W. J. Parker, city engineer.

Sewers.—Commissioners of Denton, Md., will open proposals September 12 for constructing sewer system and furnishing the materials; work to embrace one and two-tenths miles of pipe sewers from 8 to 24 inches in diameter; plans on file with city clerk, C. Leslie Walls, and with engineer, Wm. D. Uhler.

Sewers.—Sealed proposals will be received until September 11 for constructing sewer in the District of Columbia. Forms, specifications and necessary information may be obtained at Room 43 District Building, Washington, D. C.; Henry B. F. Macfarland, Henry L. West, Jay J. Morrow (acting), commissioners, District of Columbia.

Sewer System.—Proposals will be received until September 1 by city council of Covington, Tenn., for construction of five miles of sanitary pipe sewers and two septic tanks, plans and specifications for which are on file with Recorder C. B. McLellan and with engineer in charge, Granbery Jackson of Nashville, Tenn. For information address engineer or E. H. McFadden, secretary sewer committee, Covington.

Sewer Work.—City Engineer's Office, Galveston, Texas. Sealed proposals will be received at office of city secretary until September 3, and opened at first regular special city commissioners' meeting thereafter, for construction of vitrified-pipe sewer laterals as shown by plans on file in office of city engineer, together with all manholes and appurtenances thereto, approximate quantities as follows: 7625 lineal feet of 8-inch pipe, 3880 lineal feet of 10-inch pipe, 1095 lineal feet

of 12-inch pipe, 38 manholes, 12,600 lineal feet of 2x1 inch by 16-foot running board. Said work to be done in accordance with plans and specifications prepared by city engineer and on file in his office. Each bid must be submitted in duplicate on blank form attached to specifications, which will be furnished upon application, and must be accompanied by certified check, payable to order of city treasurer, in 10 per cent. of amount of bid. The city will furnish vitrified pipe necessary for said laterals and deliver same to the contractor along the line of work. Bond in the sum of 50 per cent. of amount of contract will be required for faithful performance of same; H. C. Lange, commissioner of water-works and sewerage; C. G. Wells, city engineer; John D. Kelley, city secretary.

Sewer Work.—Bids will be opened September 15 by the city of Salisbury, N. C., for constructing 1163 feet of 18-inch sewer pipe, 72 feet of 14-inch C. I. pipe, five manholes and one septic tank, one 18-inch and one 8-inch vitrified elbow, three 8-inch and two 12-inch C. I. sluice gates. For specifications, forms, proposals, etc., address J. M. Bandy, consulting engineer, Greensboro, N. C., or J. W. Webb, plumbing inspector, Salisbury. (This work recently referred to; date of letting changed.)

Skates.—A. C. Reed, Little Rock, Ark., will buy roller skates.

Spring Steel.—J. W. Baggett, Erin, Tenn., wants large quantity of spring steel, one-half inch wide and about the thickness of an eight-day-clock spring.

Steel.—See "Concrete Construction."

Steel Bridge.—Board of County Commissioners of Echols county, Georgia, J. W. Sowell, chairman, Statesville, Ga., will receive sealed bids for the construction of steel bridge to be built across the Alapaha river near Mayday, Ga. Plans and specifications in the office of the county commissioners at Statesville. Contract to be let September 3, 1906.

Steel Cages for Jails.—See "Iron Work."

Street Improvements.—Sealed proposals will be received until September 7 for grading and improving Connecticut avenue west of Rock creek. Blank forms of proposal, specifications and all necessary information will be furnished at Room 43 District Building; Henry B. F. Macfarland, Henry L. West, Jay J. Morrow (acting) commissioners, Washington, D. C.

Tank and Tower.—Shreveport Cressoting Co., Shreveport, La., wants steel water tank of 30,000 to 50,000 gallons capacity, with 70-foot steel tower.

Theater Scenery.—John Osolinach, Bay St. Louis, Miss., wants stage scenery.

Tin-box Manufacturers.—J. W. Baggett, Erin, Tenn., wants to contract for manufacture of tin boxes 4x19 inches, with lid hinged in front; will want to order by the thousand.

Traction Engines.—T. L. Caudle, Wadesboro, N. C., wants to correspond with makers of or dealers in traction engines.

Vacuum Cleaning.—See "Mechanical Equipment."

Water Mains.—See "Electric-light Plant."

Water-power Machinery.—South Georgia Land & Industrial Co., Milltown, Ga., is interested in electrical and water-power machinery; correspondence invited.

Water-wheels.—Panacea Springs Co., George S. Prichard, manager, Greenville, N. C., wants prices on turbine wheels.

Whip Machinery.—James R. White, Rock Hill, S. C., wants catalogues and prices of machinery for manufacturing whips.

Woodworking Machinery.—Norfolk Hardware Co., Norfolk, Va., is in the market for second-hand heading planer, in first-class condition, with capacity of dressing 6000 feet per day.

Woodworking Machinery.—See "Sash Machinery."

Woodworking Machinery.—See "Excelsior Machinery." "Box Machinery" and "Lath Machinery."

Woodworking Machinery.—See "Pin (Wood) Machinery."

Woodworking Machinery.—See "Planer."

Westbrook Elevator Co. in Atlanta.

Because of the increasing demand in the South for the Westbrook passenger and freight elevators, the J. B. Westbrook Foundry & Machine Co. has established a branch office, with C. H. Alexander in charge, at 45 Century Building, Atlanta, Ga. This company, whose home is at Danville, Va., manufactures its elevators for electric, hand and belt power, with approved safety attachments, besides manufacturing automatic hatch doors and gates.

INDUSTRIAL NEWS OF INTEREST

Southern Mineral and Timber Offered

Copper properties and other mineral lands, besides timber tracts available for development, are offered for sale by E. Breckenridge, Moss & Co., Asheville, N. C. Write them for full particulars.

Clay Lands for Sale.

Some 100 acres of brick-clay lands located within three miles of Columbus, Ga., are offered for sale. Two railways traverse the property. For full details address "Opportunity," Box 135, Columbus, Ga.

Opportunity for Investment.

An interest in an established brick and tile plant is offered for sale by S. E. Record of Charleston, Ill. Mr. Record states that the enterprise is now profitable, and an experienced man is wanted to purchase interest and undertake management.

Ice and Refrigerating Plant.

An established ice and refrigerating plant in a town of 2000 inhabitants is offered for sale by C. T. Rosenthal of Batesville, Ark. The plant manufactures 20 tons of ice daily and has 10 tons refrigeration capacity. It is stated that the machinery is practically new and in good order.

Wants Bids on Building.

Estimates are wanted on the erection of a building to be used as a piano factory by L. D. Sampson, 140 Dearborn street, Chicago, Ill.; structure to be two stories high, 52x218 feet; brick construction; 18-inch walls; flat gravel roof; 12-foot ceilings, and 120-horsepower engine and boiler.

Spring Steel and Tin Boxes Wanted.

Mr. J. W. Baggett of Erin, Tenn., writes the Manufacturers' Record that he wants to order a large quantity of spring steel one-half inch wide and of the thickness of an eight-day clock spring. He also wants to order, in thousands, tin boxes 4x1x9 inches in size, having a lid hinged in front.

Contract for Heating Apparatus.

Manufacturers of heating apparatus will be interested in contract recently awarded by Frank P. Milburn Company, architect, Home Life Building, Washington, D. C., to B. MacKenzie, Greensboro, N. C., for the installation of a complete heating system in large dwelling designed for Nellie O'Donnell at Sumter, S. C.

Arkansas Timber Lands Offered.

Three timber properties in Hempstead county, Arkansas, are offered for sale by the owner. They are reported as including a tract of 700 acres that will cut 4000 to 5000 feet of merchantable oak, hickory and other hardwood, located near railway; 17,000 acres of pine cutting the same quantity, near railway and adapted for farming after timber is off, and 87,000 acres of over-cup oak, near railway. For full particulars address H. E. Graham, 43 Exchange Place, New York city.

Clever Ways to Test Roofing.

The manufacturers of Paroid and Neponset roofings have put in their dealers' store doors mats made of the Paroid roofing itself, and this is certainly a clever way to prove the toughness and durability of Paroid. Samples of Neponset are put out in the shape of a cone-shaped cup and the directions on the outside read: "Fill this cup with water, and you will see that the water evaporates, but never soaks through Neponset." We suggest that all interested in roofing send to Messrs. F. W. Bird & Son, East Walpole, Mass., and ask for their samples to make your own tests.

Describing Cotton Mill for Sale.

It was announced recently that the Mississippi Cotton and Woolen Mills of Wesson, Miss., is offered for sale. Those who may be interested as possible buyers of the property are advised that the receiver, Thad. B. Lampton, has prepared an illustrated pamphlet presenting a complete description of the plant. All the mill buildings and other structures, tenement cottages, hotel, textile machinery, raw materials, finished goods, etc., is, of course, included in the sale and referred to at length in the pamphlet mentioned. Some 750 operatives are employed at the mills, and it is claimed the ownership of this enterprise offers an exceptional opportunity for investment. Write Mr. Lampton for a copy of the pamphlet.

Baltimore Water-Front Property Offered.

Manufacturers or investors who may be interested in acquiring water-front property at Baltimore, Md., are invited to investigate a certain tract of land now on the market.

This tract comprises 50 acres, fronting 500 feet on Baltimore harbor, lying below Brooklyn, Anne Arundel county. It has shipping facilities by rail and water, being opposite the tidewater terminal of the Wabash Railroad, and therefore accessible to that railway's barge service, and is directly on the Baltimore & Ohio Railroad. The land can be sold as a whole or in part. A plat of the ground, abstract of title and other data can be seen at offices of Randolph Barton, Jr., 207 North Calvert street, Baltimore, and he is authorized to make sale.

De La Vergne Orders.

The De La Vergne Machine Co., foot East 138th street, New York, reports the following among other recent orders received for "Hornshy-Akroyd" oil engines: Central New England Railway Co., Hartford, Conn., 7 horse-power geared to pump; F. J. Stokes Machine Co., Philadelphia, Pa., 25 horse-power; the Hastings Pavement Co., New York city, 16 horse-power; the W. F. Norman Sheet Metal Manufacturing Co., Nevada, Mo., 50 horse-power; Union Ballast Co., New York city, one 20 horse-power and one 32 horse-power; D. P. Forst & Co., Trenton, N. J., 13 horse-power; Webb Wire Works, New Brunswick, N. J., 32 horse-power; Messrs. J. W. Lippincott, S. P. Scott & Max Meyer, Little Rock, Ark., 50-horse-power engine to drive a De La Vergne ice machine.

Regarding Merits of Gravel Roofing.

The merits of composition built-up gravel roofing is indicated in a report of a fire at Gulfport, Miss., recently. Nearly an entire city block was destroyed, excepting the Gulfport News building and the Riverside Cafe. The owners of these structures believe they were saved by the presence of gravel roofing. They state that the woodwork and the sills were destroyed, but no other damage resulted. An interesting fact in this connection is that the roofs were composed of composition built-up gravel roofing as manufactured and laid by the New Orleans Roofing and Metal Works of New Orleans, La. This company furnished the Gulfport roofing about six years ago. Its Mobile (Ala.) branch has recently received contracts covering composition built-up gravel roofing for over 2000 squares at Montgomery, Ala., and 500 squares at Dothan, Ga., besides numerous contracts in Mobile, Ala.; Pensacola, Fla.; Meridian, Gulfport and Waynesboro, Miss.

Something About Voltax.

The new Voltax liquid compound is being extensively used as a waterproof paint. Mr. Caspar Ranger of Springfield, Mass., is using a large quantity of it for painting stone work in order to prevent moisture from sweating through. The manufacturer of this material is the Electric Cable Co. of 17 Battery place, New York, which states that the Voltax liquid compound is also being extensively used as a paint for furnace doors and stacks, on which it has been found to withstand an exceedingly high temperature. Orders have been received from the New York Central & Hudson River Railroad and New York & Queens County Railroad for Voltax to be used as a high potential insulating compound. The New York Central will use Voltax extensively in the electrical work at High Bridge. Among other railway companies using the material are the Illinois Central and the Norfolk Lighting & Railway Co. of Norfolk, Va. The latter company will use Voltax compound for underground insulation work.

Some Interesting Recent Sales.

The dairies, packing companies and other industries are taking in increasing number the ice and refrigerating machines manufactured by the Creamery Package Manufacturing Co. of Chicago, Ill. This company's recent interesting sales included the following: Five-ton refrigerating plant for Wm. von Kennen, Youngstown, Ohio; 10-ton refrigerating and 1½-ton ice plant for Sweet Briar (Va.) Institute; 3-ton refrigerating plant for Ledbetter Produce Co., Anniston, Ala.; 10-ton refrigerating equipment for Ira J. Mix Dairy Co., Bowes, Ill.; McBride Bros. & Knobbe, Walworth, Wis., 10-ton refrigerating plant for ice-cream plant; 10-ton ice plant for People's Ice, Fuel & Supply Co., Quincy, Fla.; 25-ton refrigerating and 2-ton ice plant for Erie County Milk Association, Erie, Pa.; 13-ton refrigerating equipment for Hammond Packing Co., Memphis, Tenn.; 3-ton refrigerating equipment for H. A. McClimans, Franklin, Pa., and 7-ton refrigerating plant for Louis Zimmerman, Youngstown, Ohio. The Creamery Package Manufacturing Co. makes a specialty of building and installing ice and refrigerating machines of the sizes needed by dairies, butter

factories, ice-cream plants, packing-houses, butchering establishments and other enterprises.

Ornamental Ironwork Contracts.

Great quantities of ornamental ironwork are being used in the numerous buildings being erected in various cities and counties of the South. This ornamental ironwork is manufactured in the various plants throughout the country, quite a quantity being furnished by Southern manufacturers. The latter class includes the Dow Wire Works Co. of Louisville, Ky., which has extensive works and is supplying a large trade. The company's recent contracts include ornamental ironwork for the Lincoln Savings Bank Building, a 15-story office structure in Louisville. One of the specialties of the Dow enterprise is a package chute for quickly and easily distributing boxes, parcels and merchandise from floor to floor in all kinds of buildings. The chutes are made to accommodate varying sizes of packages up to a packing case, and, when required, are furnished with a switching device that shunts the materials to designated floors. Orders for these chutes have been received recently from Hibbard, Bartlett & Spencer, Chicago; Batterman Company Department Store, Brooklyn, N. Y.; Brown Shoe Co., St. Louis; Schwarzschild & Sulzberger, Kansas City; William Taylor Sons Company, Cleveland, Ohio, and J. K. Orr Shoe Co., Atlanta, Ga.

Recent York Manufacturing Co. Contracts.

Many contracts have been secured by the York Manufacturing Co. of York, Pa., since its previous report. They include: Elwyn, Pa., Pennsylvania Training School, 6-ton refrigerating and 2-ton ice-making plant; New York, Westerberg & Williams, 10-ton refrigerating plant for Seaside Hospital, New Dorp; New York, Westerberg & Williams, 20-ton refrigerating plant for Alex. Campbell, Brooklyn, N. Y.; Greensboro, N. C., Power & Armstrong, 25-ton ice-making plant; Alken, S. C., Alken Artesian Ice Co., 15-ton ice-making plant; Abbeville, S. C., John S. Norwood, 15-ton compression side and 10-ton ice plant; Nashville, Tenn., Neuhoff Abattoir & Packing Co., 30-ton refrigerating plant; New York, Leonard Michel, 300-ton refrigerating machine in brewery; Stapleton, S. I., George Bechtel Brewing Co., one pair of single-acting compressors to replace present double-acting compressors; also 150-ton ammonia condenser; Charleston, W. Va., Kanawha Hotel Co., 10-ton refrigerating plant and 1-ton ice plant; Cumberland, Md., Ridgely Bros., 15-ton ice-making plant; Huntington, W. Va., West Virginia Brewing Co., 125-ton refrigerating machine and 75-ton freezing and distilling system; Cumberland, Md., Cumberland Brewing Co., 125-ton refrigerating machine and 75-ton freezing and distilling system; St. Louis, Mo., St. Louis Brewing Association, 175-ton refrigerating machine; Lebanon, Pa., Daniel Weaver, 15-ton compression side and 10-ton ice-making plant; Virden, Ill., David Wilson, 10-ton ice-making plant, and Bluefield, W. Va., Bluefield Ice & Cold Storage Co., 35-ton ice-making plant.

TRADE LITERATURE.

Design of Reinforced Concrete.

When the Association of American Portland Cement Manufacturers held its quarterly meeting at Atlantic City, in June last, some interesting discussions were held regarding reinforced concrete construction. One of the papers read was by Ross F. Tucker, president of the Tucker & Vinton Corporation of New York. It has been republished in pamphlet form, accompanied by illustrations, under the title of "The Progress and Logical Design of Reinforced Concrete." Mr. Tucker is a well-known engineer for concrete-steel work, and the data which he presents is of especial interest to building contractors, owners and architects. Some timely facts are given regarding the effect, or, rather, lack of effect, of the San Francisco earthquake on concrete buildings.

Sims Feed-Water Heaters.

In the pages of an illustrated pamphlet now ready for those interested is set forth the sizes, types, construction and dimensions of the several Sims feed-water heaters, both closed and open type. These heaters are the outcome of an experience of over 20 years as manufacturers of steam appliances, and the designs are submitted with perfect confidence that the most exacting and scientific engineers will recognize that they are thoroughly up to date and represent the highest type of the engineering art. The Sims heaters are made of the best material by skilled workmen, all parts being thoroughly standardized by gauges and templates, and are subject to rigid inspection and tests before leaving the factory. Dealers in steam specialties and

those steam users who want to be informed regarding the latest improved feed-water heaters will find data for their consideration in Sims Catalogue "G." For a copy write the Sims Company of Erie, Pa., the manufacturer of the Sims feed-water heaters.

E. Keeler Company Boilers.

For 41 years the E. Keeler Company of Williamsport, Pa., has been manufacturing steam boilers of the tubular, portable and marine type. In 1900 the company doubled its shops and began the construction of water-tube boilers, and the entire plant is now of the most modern type and has a complete equipment for the production of the E. Keeler boilers, which have become widely known for their efficiencies and economies in power service. Discriminating steam users throughout the power world realize the merits of the Keeler boilers and are using them. The Keeler Company has just issued a new catalogue of its boilers, presenting descriptions and illustrations that will interest the progressive purchaser of steam-power machinery. Copies are sent on request.

The Best in Texas.

An interesting and valuable booklet has been issued to furnish an array of facts for the guidance of farmers, business people and others who are looking for a chance to better their conditions. It aims to tell people of the best in Texas, and "The Best in Texas" is the title of the book. Data regarding locations, climate, health, rainfall, irrigation, soil, roads and bridges, lay of the land, water, timber, natural products, agricultural products, livestock, specialties, railroads, sport and pleasures and population have been gathered together in a convenient and interesting form for people to read. The facts relate especially to San Angelo and Tom Green county, Texas. The San Angelo Business Club is distributing the booklet and invites requests for copies.

The Burrows Steam Specialties.

There is now being distributed a booklet which is of interest to coal users and steam-makers. The publisher states that it will pay manufacturers, engineers and business men to read the publication and investigate the steam specialties of which it presents details. Included in these specialties is the Burrows automatic steam-pump regulator and low-water alarm, designed for single boilers; the Burrows automatic feed water regulator and low-water alarm, designed for batteries of boilers; Burrows back-pressure valve pump regulator, Burrows automatic damper regulator, and Burrows steam trap for high or low pressure. These devices have established a reputation for economy and safety. They are manufactured at York, Pa., by the Burrows Manufacturing Co., main office at 73 Warren street, New York.

The Sargent Steam Meter.

The Sargent steam meter is an instrument for indicating the pounds of steam flowing through it irrespective of the pressure. It shows at a glance the quantity of steam being used by the engine, steam pump, heating system or drying-room, to which it may be applied. This meter is used for testing engines where surface condensers are unavailable, for testing the capacity of boilers and for measuring the amount of steam used in each department of industrial plants. It is used by many who sell steam and by others who buy steam. These few references to the Sargent steam meter will serve to indicate the character of the device and prompt interested people to investigate its features. A detailed description is being presented in a leaflet issued by the manufacturer, the Sargent Steam Meter Co., First National Bank Building, Chicago, Ill.

The Farmer's Compress.

One of the greatest needs of the cotton farmer has been machinery that will enable him to prepare his cotton on his plantation or at the local gin ready for the spinner or exporter or his agents. The Farmers' Compress Construction Co. aims to meet this need in the machines which it builds. It states that the advantages of the new compress are that the farmer hauls his cotton to the gin, and from the gin it passes into the Farmer's compress, where it is put into a rectangular bale of standard size and of far greater density than is given by any other compress. Then the cotton is ready to be sold on the spot to the buyer, who can load it at once for its final destination. It is stated that the Farmers' compress makes a bale 20x26x56 inches, weighing 500 pounds, its density being 30 pounds per cubic foot. This compress is illustrated and described in a pamphlet which the Farmers' Compress Construction Co. is now distributing. Copies can be obtained by addressing the offices in the Real Estate Trust Building, Philadelphia, Pa.

Mine and Quarry Information.

Mine and Quarry is a quarterly bulletin of news for superintendents, managers, engineers and contractors interested in mine and quarry enterprises. Its publication was begun in July, and its second number, for August, contains exceptionally timely and valuable data relating to industrial developments wherein mining and quarrying machinery of the most approved type has been used. Especially interesting are the articles on quarrying sandstone, channeling in New York city, drilling in colliery development and the Gunnison irrigation tunnel in Colorado. It is shown that these important projects are made possible by the drilling machinery which American inventors have perfected, and industrial workers who are interested in mining and quarrying cannot afford to be ignorant of the facts. While Mine and Quarry is published by that well-known manufacturer of mining and quarrying machinery, the Sullivan Machinery Co. of Chicago, Ill., in the interest of its types of machines, yet there is general information that is of value to the practical man seeking to keep acquainted with the latest developments in the class of industrial activity mentioned.

Automatic Weighing and Recording.

It may be said that the basis of modern industrial operations lies in dealing with materials and products in large and increasing quantities and having a vigilant check at desirable points of handling for manufacture, thus guarding against possible leakages and enabling the executive to keep his hand upon the pulse of operations at all important points. The essential importance of this has created a demand for a method of reducing to a mechanical certainty the record of the weight of material handled in large quantities. A system of automatic weighing and recording which has met with favor and is becoming more appreciated every day is manufactured by the Weston Engineering Co., 56-58 Pine street, New York. This is the Blake-Denison equipment, and a complete illustrated description is presented in a publication which the company named is now distributing. The pamphlet is illustrated by photographic views of the machines and parts of some large installations made in different countries throughout the world. Manufacturers, miners and others engaged in industrial activity where automatic weighing and recording is desired should not fail to investigate the Weston Engineering Co.'s offerings.

PIG-IRON IN STRONG DEMAND.**Birmingham Hears of Need for Large Quantities.**

[Special Cor. Manufacturers' Record.]
Birmingham, Ala., August 27.

Pig-iron in the South is in strong demand and bringing top-notch prices. No. 2 foundry iron, delivery during the balance of this year, is bringing \$16 right along, while sales being made for delivery during the first part of next year is holding well at \$15 and \$15.50 per ton. There are still rumors of a runaway market. Some of the conservative interests in the State are fighting against any such condition. It is argued that a runaway market has bad effects and injures the business for some time to come.

The reports which come to this section are to the effect that there is need for a large quantity of iron all around the country, and those who are in a position to sell will get a good price for their product. The report is current that some of the furnaces are behind on their orders and are pushing to get the iron out. The railroads are lending every assistance in moving the iron. There is still some low-priced iron to be delivered from this district. Small lots and quick delivery iron is bringing good prices, and the sales during the balance of the year will cause big earnings with furnace companies. The make in this district is still off some. Several furnaces are about ready for the torch, but still there is no announcement as to when they will be started up. All the iron that could be manufactured is needed, and it is believed that just as soon as arrangements can be made for a steady supply of raw material and labor around the furnaces the torches will be applied.

Prominent iron men, when asked as to

conditions of the iron and steel mart in this section, do not hesitate in saying that everything is just as bright as it could possibly be. Quotations are high, the demand strong and inquiries coming in at a brisk rate is the way it is stated.

The indications are that there will be a demand for pig-iron for some time to come; in fact, it is believed that before the end of this year the probable make for the first three months of 1907 will have been disposed of and a number of orders placed for delivery during the second quarter. The inquiry being received in this territory would indicate that the consumers are going to need iron for business they have in hand already, and therefore are investigating where they will be able to get the product.

The home consumption is heavy. The pipemakers, foundrymen and machine-shop people and other iron consumers have prepared for their needs for some time ahead, and are pushing all their plants to the largest possible output. Shipments of the finished product from this district are steady. The railroads are handling all the business being given them just as promptly as possible.

There is no change in the activity noted for several weeks in the steel mart in this section. No positive information is given out as to what will be done at the meeting of stockholders and directors of the Southern Steel Co. at Gadsden, Ala., the last of this week. It is not doubted that steps will be taken looking to the acquiring of a couple of iron interests in this district, which would increase the capacities of the steel company considerably.

A feature of the past week is the return of union coal miners to mines of furnace companies, the men seeking employment wherever the same can be found. A vote was taken by the locals in the Alabama district organization of the United Mine Workers of America, and a big majority was given looking to a return to work. The strike, which began in July, 1904, was called off and the men are allowed to seek employment wherever they can, it being understood that they would get work in union mines where that is possible. Between 2000 and 3000 men are now seeking employment in coal mines in this State, and the output should be materially increased.

There is still a shortage of labor at many of the iron mines and furnaces. Some complaint is being raised as to the Italian labor being brought in, the men not being as steady as is desired, nor are they as capable of the hard work as was at first anticipated. The other class of foreigners appear to be more suited for the employment. However, the efforts to bring in more foreign labor continues without the least abatement.

New Orleans' Advantages.

The Progressive Union of New Orleans has prepared to give wide circulation to a pamphlet giving in succinct form facts about the trade of the city and its general growth. Referring to the pamphlet President Albert Godchaux of the Progressive Union said in the *Times-Democrat*:

"Glancing over the 'copy' for this booklet, one cannot help being impressed with the enormous increase and development of the trade of the port as therein shown. For instance, the banking statistics. These show that the bank clearings in the year 1895 were \$487,948,183, while 10 years later they had grown to the enormous sum of \$962,771,900, showing an increase of nearly 100 per cent.; in other words, doubling themselves in the period mentioned. The bank deposits are even more impressive. These grew from \$27,000,000 and some odd dollars in 1895 to \$78,877,688 in 1905, or an increase of

nearly 200 per cent. Again, July 1, 1906, the total capital and resources of the 23 banks in New Orleans were \$103,568,580, an increase over the two years previous of over 30 per cent. It is to be noted that our postoffice receipts increased 50 per cent. in the five-year period mentioned, and our ocean tonnage arriving and clearing at this port doubled itself, the tonnage for 1905 amounting to 3,169,380.

"Our exports have increased 25 per cent. in the last five years, while the imports through this port have nearly doubled in that time.

"Perhaps the largest figures are shown in the coffee trade, New Orleans importing last year 213,006,750 pounds of coffee, or something like 475 per cent. increase over 1900; and this trade is constantly growing.

"The fruit trade, of course, is destined to be one of our big industries, and receipts of bananas were just about double in 1904 what they were 10 years ago, while for the six months of the current year receipts of bananas were 5,500,000 bunches, or 700,000 more than the whole of 1895. This involves a corresponding increase in the tonnage, which for the six months of this year increased 20 per cent.

"The grain exporting trade bids fair to grow to vast proportions in the near future. The efforts being made by our large trunk lines and the magnificent terminal facilities in the shape of grain elevators installed bear witness to their preparation. Over 18,000,000 bushels of corn, 1,600,000 bushels of wheat, 3,700,000 bushels of oats and 1,000,000 bushels of barley left this port in the period between September 1, 1905, and July 31, 1906.

"The returns from our railroads show that the amount of freight handled has nearly doubled in the past five years. The booklet has some interesting paragraphs in relation to our railroad development; the dock commission, which is expending about \$2,000,000 on a series of magnificent steel warehouses along the river front; on the building now going on in and around New Orleans; and if there were nothing else, this alone is phenomenal, showing as it does something like \$10,000,000 worth of construction now in progress; also the advantage New Orleans possesses in being 600 miles nearer Panama than the ports of the Atlantic.

"It will come as a matter of interest to our own people, as well as outsiders, to be told that the United States government is spending \$3,000,000 on a new channel through South Pass, destined to provide a depth of 35 feet and width of 1000 feet. At present vessels drawing 28 feet find no difficulty coming in through South Pass.

"The Belt Railway is touched upon, and, of course, the vastly important work of the sewerage and drainage board. And, by the way, I was immensely pleased to note the announcement in the papers the other day that the new drainage system will be put into operation about October 1. In the important item of schools it may be noted that four new buildings will be erected this year, as well as six two-story annexes. Attention is called to the interesting and valuable collection of the State's agricultural, mineral and other products in the Washington Artillery Hall. This is a display every one of our own people should make a point of seeing, and for them and the growing boys and girls of our community it is a veritable education.

"The booklet concludes with data as to the weather and gives the very interesting figures issued by the board of health bearing on the death rate of New Orleans. This is a remarkable showing in itself."

It is rumored in New York that there may be a combine of the sugar interests of Louisiana backed by New York and New Orleans capitalists.

The Iron and Metal Trades.

The *Iron Age* in its weekly review says: "Present scarcity dominates the pig-iron market, and the possibilities of production in the farther future get scant notice. Consumers of foundry iron in particular, who find difficulty in meeting early wants, are pre-empting furnace output in the early months of 1907. Only a good beginning has been made in buying for next year, and naturally the large foundry interests lead the movement. At advancing prices further business has been placed. Sellers seem less eager than buyers to reverse the practice of many months of making short intervals between sales and final deliveries.

"In the Central West there is less excitement than in former weeks, while in the East, as shown in the Philadelphia market, the feeling of uneasiness on the part of buyers is more marked. That consumers are not unanimous in their judgment of the future is illustrated in the withdrawal of an inquiry for 10,000 tons of foundry iron by a Wisconsin implement works.

"Pig-iron prices have advanced 50 cents to \$1 a ton, and variations in selling prices grow more noticeable. On Southern iron prices for 1907 delivery range from \$15 to \$16 Birmingham for No. 2 iron, the discrepancy coming in part from the practice of making delivered prices which meet district competition. The largest sales of the week, chiefly Northern irons, were 16,000 tons to the Westinghouse interests and 20,000 tons to the New York Air Brake Co.

"In steelmaking pig-iron, since large buyers are chiefly concerned and they are willing to let a shortage be a shortage, the market has calmed down. With the starting of the new Bessemer steel plant at Youngstown the situation is simply that a certain tonnage of Bessemer iron will be converted there that under other conditions would have gone to increase the steel supply of the larger companies. Pittsburgh reports sales of basic iron for the first half of 1907 at \$18 at valley furnace, including 25,000 tons for Buffalo. Bessemer iron has gone to \$18.50 at furnace.

"As indicating what may be expected later in the year, it is noted that three additional furnaces of the Illinois Steel Co., together producing 1000 tons a day, will be active in the next 30 days. As humidity declines pig-iron production in all districts will increase.

"The complaint always attending an advancing market is heard here and there—that iron bought at low prices does not come forward at scheduled deliveries.

"Though the United States Steel Corporation is promoting deliveries of semi-finished steel between its subsidiary sheet and tinplate companies and the independent mills in those lines, the latter are considerably short of their needed supply of steel. It is not true, however, that the Carnegie Steel Co. has advanced the price of sheet bars to \$30. September deliveries will be made at \$29, as heretofore. Other sheet-bar mills have sold at \$30 and higher.

"Buying of steel cars has begun in earnest, 15,000 being placed last week. Large orders are yet to be given out.

"Heavy business in both sheets and tinplates is reported in the past week, and advances in both lines appear imminent. Some independent producers have already put up their prices \$1 a ton."

It is announced by H. W. Kapp, general agent of the Pennsylvania Railroad Co. in Baltimore, that it is the intention of the railroad company to shortly take bids on the construction of grain storage bins to be operated in connection with the grain elevator No. 3 at Canton. These bins will have a capacity of 500,000 to 1,000,000 bushels and will be constructed entirely of reinforced concrete.

The operations of the Steamship Company during the past year have been satisfactory, but owing to the large liabilities incurred in the purchase of new ships and improvements no dividends have been paid.

GENERAL REMARKS.

There has been no change in mileage during the year.

As indicated in the last annual report, a branch line has been built from the Henry Ellen Spur, 10½ miles in length (added to miles operated July 1, 1906), to reach the development of the Company's coal property in the Upper Cahaba field in St. Clair County, Alabama. The coal property acquired from the Tunnel Coal Company and the cost of the extension of the Henry Ellen Spur have been paid for with the proceeds of \$600,000 of this Company's divisional 4 per cent. bonds sold for this purpose. This property, as stated in the last annual report, has been leased to a responsible company upon a royalty basis, and is now being developed on a very substantial scale. The minimum guaranteed production is now 600 tons of coal per day, which, under the terms of the contract with the operators, is to be increased every six months until the output reaches 2000 tons per day. The coal is of good quality, and the development indicates that this is a very valuable property.

During the year there were established on or adjacent to the lines of this Company one hundred and ninety four new industries, representing twenty-nine classes, with a capital of \$6,506,880, and employing 7108 hands.

1,641,681 fruit trees were planted on our line during the year, and there was an increase of 2,088,854 trees coming into bearing during the year.

Attention is called to the report of the General Manager covering the operation and physical condition of the property, and to the report of the Auditor with respect to financial condition and results of operation in detail, and for statistics of operation and traffic.

The accounts of the Company have been examined by Messrs. Haskins & Sells, Certified Public Accountants, and a copy of their certificate appears on page 16 of this report.

Acknowledgment is made to officers and employees for faithful and efficient service.

Respectfully submitted,

By Order of the Board of Directors,

J. F. HANSON, President.

Central of Georgia Railway Company.

OFFICE OF GENERAL MANAGER.

Savannah, Ga., July 26, 1906.

MR. J. F. HANSON,

President:

Sir—The following report on the operation and physical condition of the property for the fiscal year ended June 30, 1906, is submitted:

MILES OF ROAD OPERATED JUNE 30, 1906.

	In Georgia.	In Alabama.	In Tennessee.	Total.
Owned—Under First and Consolidated Mortgages:				
Savannah to Atlanta, Ga.	294.73			294.73
Gordon to Milledgeville, Ga.	17.32			17.32
Total.....	312.05			312.05
Owned—Under Divisional and Consolidated Mortgages:				
Dover to Brewton, Ga. (Oconee Division).....	77.02			77.02
Milledgeville to Covington, Ga. (M. G. & A. Division).....	64.57			64.57
Macon Junction to Athens, Ga. (Macon & Northern Division).....	101.78			101.78
Columbus, Ga. to Andalusia, Ala. (Mobile Division).....	1.14	138.82		139.96
Carrollton, Ga. to Chattanooga (Shops), Tenn. (Chattanooga Division).....	133.79		3.78	137.57
Chickamauga to Durham, Ga. (Chattanooga Division).....	17.54			17.54
Lyerly, Ga. to Toles Hollow, Ala. (Chattanooga Div.).....	6.85	2.52		9.37
Total.....	402.69	139.34	3.78	545.81
Owned—Under Consolidated Mortgage:				
Savannah to Tybee, Ga.	17.70			17.70
Meltrim to Lyons, Ga. 58.09 miles, leased to Georgia & Alabama Railway Co.				
Barnesville to Thomaston, Ga. (*Entire stock owned).....	16.25			16.25
Griffin to Carrollton, Ga.	60.00			60.00
Covington to Porterdale, Ga.	4.05			4.05
Americus to Columbus, Ga.	62.34			62.34
Columbus, Ga. to Greenville, Ga.	49.51			49.51
Columbus, Ga. to Birmingham, Ala.	1.07	155.27		156.34
Opelika to Roanoke, Ala.		36.12		36.12
Montgomery to Eufaula, Ala.		79.65		79.65
Eufaula to Ozark, Ala.		60.00		60.00
Total.....	210.92	331.04		541.96
Grand Total—Owned.....	925.66	470.38	3.78	1399.82
Leased:				
Augusta & Savannah Railroad:				
Millen to Augusta, Ga.	53.21			53.21
Southwestern Railroad:				
Macon, Ga. to Eufaula, Ala.	142.60	1.00		143.60
Fort Valley to Columbus, Ga.	71.00			71.00
Fort Valley to Perry, Ga.	12.50			12.50
Smithville, Ga. to Columbia, Ala.	83.61	1.40		85.01
Cuthbert to Fort Gaines, Ga.	20.50			20.50
Chattahoochee & Gulf Railroad:				
Columbia to Lockhart, Ala.		91.47		91.47
Total.....	383.42	93.87		477.29
Owned Track on Leased Right of Way:				
Chattanooga, Tenn. (Shops to N. C. & St. L. Connection).....			.13	.13
Trackage Rights:				
C. N. O. & T. P. and Alabama Great Southern Railways:				
Chattanooga, Tenn.			.50	.50
Total miles operated.....	1309.08	564.25	4.50	1877.83
*11647 shares pledged.				

MILES OF ROAD UNDER CONSTRUCTION JUNE 30, 1906.

	In Georgia.	In Alabama.	Total.
Owned under Divisional and Consolidated Mortgages:			
Henry Ellen Spur to Margaret, Ala. (Upper Cahaba Branch).....		10.52	10.52
Greenville to Raymond, Ga. about.....	23.73		23.73
(Greenville & Newnan Main Line.)			
Total.....	23.73	10.52	34.25

EARNINGS, EXPENSES AND TAXES.

	1906.	1905.	Inc. Dec. or	Per cent. of Inc. Dec. or
Earnings:				
From Passengers.....	\$2,754,165	\$2,395,769	\$358,396	14.97
From Freight.....	7,737,561	6,808,639	928,922	13.54
From Mail.....	221,294	222,073	779	.35
From Express.....	226,636	193,196	33,440	17.31
From Other Sources.....	455,437	515,378	59,941	11.63
Total.....	\$11,396,123	\$10,135,065	\$1,261,058	12.44

Expenses and Taxes:				
Maintenance of Way and Structures.....	\$1,845,793	\$1,607,530	\$238,263	14.82
Maintenance of Equipment.....	1,712,132	1,744,236	(\$32,094)	1.84
Conducting Transportation.....	3,892,830	3,394,369	498,461	14.68
General Expenses and Taxes.....	784,458	671,841	112,617	16.76
Total.....	\$8,235,213	\$7,417,966	\$817,247	11.02
Net Earnings.....	\$3,160,910	\$2,717,089	\$443,821	16.33
Expenses and Taxes—percentage of earnings.....	72.26	73.1993 1.27

GROSS EARNINGS, OPERATING EXPENSES AND TAXES AND NET EARNINGS, AVERAGES PER MILE OPERATED, AVERAGES PER REVENUE TRAIN MILE, ETC.

	1906.	1905.	1904.	1903.	1902.	1901.
Average Miles Operated.....	1,877.83	1,877.83	1,864.69	1,844.67	1,844.67	1,677.81
Revenue Train Miles.....	6,154,064	5,728,840	5,746,701	5,834,852	5,433,967	4,802,640
Revenue Tons, one mile per mile operated.....	701,066,873	595,231,752	559,681,313	577,561,852	471,487,448	437,060,554
Revenue Passengers, one mile.....	373,339	316,979	300,147	313,098	255,594	260,436
Revenue Passengers one mile, per mile operated.....	112,175,658	101,319,130	90,440,464	84,545,324	80,661,839	70,478,468
Gross Earnings.....	\$11,396,123.53	\$10,135,064.69	\$9,396,931.39	\$9,164,179.53	\$7,750,691.47	\$6,920,714.91
Gross Earnings per mile operated.....	6,065.77	5,397.22	5,039.41	4,968.08	4,201.67	4,124.85
Gross Earnings per revenue train mile.....	1.85	1.77	1.63	1.57	1.43	1.44
Operating Expenses and Taxes.....	\$8,235,212.54	\$7,417,966.04	\$7,187,385.59	\$7,002,519.61	\$5,900,510.48	\$4,991,558.41
Operating Expenses and Taxes per mile operated.....	4,385.49	3,950.29	3,854.47	3,844.89	3,144.47	2,975.04
Operating Expenses and Taxes per revenue train mile.....	1.34	1.30	1.25	1.22	1.07	1.04
Net Earnings.....	\$3,160,909.99	\$2,717,088.65	\$2,209,545.80	\$2,071,659.92	\$1,850,180.99	\$1,929,156.50
Net Earnings per mile operated.....	1,683.28	1,446.93	1,184.94	1,123.19	1,057.20	1,149.81
Net Earnings per revenue train mile.....	.51	.47	.38	.35	.36	.40
Net Earnings, percentage of gross earnings.....	27.74	26.81	23.51	22.61	25.16	27.88

MAIN LINES.

The construction of 10.52 miles extension of the 1.67 miles spur at Henry Ellen was completed on June 30, 1906, and turned over to the Operating Department as of July 1, 1906, making the total length from Henry Ellen to the coal mines of the Tunnel Coal Company operated by the Alabama Fuel & Steel Company 12.19 miles.

A contract was entered into on September 12, 1905, for the construction of the Greenville & Newnan Railway. This road will be about 23.73 miles in length, running from Greenville, Georgia, to a point on the Chattanooga District, between Sharpsboro and Newnan, Georgia, called Raymond, and should be completed by November 1, 1906.

The line from Columbus to Greenville, Georgia, 49.51 miles in length, was widened from 3 feet to 4 feet 8½ inches (standard gauge) during the year. Instead of rebuilding trestles to standard, about two miles are being eliminated by providing suitable waterways and filling. Substantial improvements to both alignment and grades are also being made.

Some improvements have been made in reducing grades on the Chattanooga District, \$15,548.15 having been expended therefor during the year.

EXTENSIONS AND SIDE TRACKS.

One hundred new side and spur tracks, aggregating 13.55 miles, were constructed, and fifty-eight side and spur tracks were extended, aggregating 5.23 miles, making a total of 18.78 miles of side and spur tracks constructed during the year. 1.71 miles of side and spur tracks were removed or shortened.

Extensive terminal improvements authorized at Albany and Savannah, including enlargement of the yards and the erection of a coal bin of 2500 tons capacity at the former, and the construction of a receiving yard with additions to other tracks at the latter, are nearing completion, \$33,312.18 having been expended at Albany, and \$54,591.03 at Savannah. \$14,356.39 has been expended on the new yard, including additional bulk tracks and new combination freight and passenger station, authorized at Athens, Georgia, representing about one-fifth of the work. Not until the track work at the three points named is finished, however, will it be included in the side track mileage.

The work of providing needed improvements in passing and warehouse tracks on all divisions is being carried on as rapidly as possible, and tends greatly to the improvement of train service.

Interlocking plant at Central Junction, near Savannah, Georgia, was completed during the year. Its installation, operation and maintenance are covered by contract between Atlantic Coast Line Railroad Company, Seaboard Air Line Railway, and our Company. \$2482.67 was also expended in the construction of additions to the interlocking plant at Oakland City, near Atlanta, Georgia.

Additional telegraph wire between Savannah and Macon and between Macon and Smithville was completed during the year. Additional telegraph lines authorized between Macon and Griffin and Albany and Smithville will be completed in advance of next fall's business.

CROSSTIES.

Nine hundred and sixty thousand nine hundred and fifty-seven cross-ties were placed in track during the year.

BALLAST.

Stone, slag, gravel and cinder ballast were placed under 16.10 miles of main track during the year.

BRIDGES AND TRETTLES.

There has been expended in renewing and strengthening steel bridges on certain parts of the line, to permit the use of heavier motive power, \$20,056.15.

The following work begun in the previous fiscal year was completed during the current year:

The old wooden bridge over Walnut street, Macon, Georgia, was replaced with a new deck plate girder bridge on concrete foundations, and the old west abutment reinforced with concrete and both abutments stuccoed.

Four-track bridge near McDaniel street, Atlanta, Georgia, carrying our own and the Atlanta & West Point Railroad Company's tracks over the Southern Railway Company's tracks.

New steel deck riveted truss across Big Tallapoosa River.
New steel bridge over Etowah River.
New concrete piers and steel draw with fixed spans at Oostanula River.
New steel truss at Chattooga River.

The half-through plate girder, removed from over Southern Railway Company's tracks at Macon, Georgia, was erected over Ogeechee Canal at Savannah, Georgia, replacing the old wooden lift bridge.

The old Howe truss over Mulberry Creek, between Columbus and Greenville, Georgia, was replaced with a 130-foot deck steel lattice girder, the old piers being built up and reinforced to suit new spans.

8,183,693 feet of timber (board measure) were used in repairing, rebuilding and constructing bridges and trestles.

One hundred and ten trestles, aggregating 10,175 feet of track, or 1.93 miles, were filled with earth and suitable waterways were provided at a total cost of \$54,865.44.

STEEL RAILS.

Ten thousand tons of 70-pound and thirteen thousand tons of 80-pound new steel rails were contracted for. 6166.31 tons of new 70-pound steel rails, aggregating 56.06 miles, and 3202.22 tons of new 80-pound steel rails, aggregating 25.47 miles, a grand total of 9368.53 tons, or 81.53 miles, received on previous and this year's purchases, were placed in track.

MILES OF MAIN TRACK AND WEIGHT OF STEEL RAILS AND MILES OF SIDE AND SPUR TRACKS, JUNE 30, 1906 AND 1905.

	Steel Rail—Miles.										Total steel rails, June 30.	Total main track, June 30.	Miles of side and spur tracks, June 30.	
	80-lb.	75-lb.	70-lb.	68½-lb.	65-lb.	63½-lb.	61½-lb.	60½-lb.	56-lb.	Under 56-lb.			1906.	1905.
Owned Main Track Operated:														
Savannah to Tybee, Ga.	14.40									3.30	17.70	17.70	2.59	2.49
Savannah to Atlanta, Ga.	283.01	27.15	1.33								294.73	294.73	190.98	174.98
Hartsville to Thomaston, Ga.											15.72	16.25	1.39	1.35
Griffin, Ga., to Chattahoochee, Tenn.	.07	14.20	5.89			26.78	22.76	3.90	113.97		197.57	197.57	40.97	28.63
Gordon to Porterdale, Ga.						64.59	8.08	8.64	4.12		85.94	85.94	9.52	9.28
Americus to Columbus, Ga.						62.34					62.34	62.34	4.16	4.01
Columbus to Greenville, Ga.							.94		1.36		42.77	42.77	4.89	4.73
Columbus, Ga., to Birmingham, Ala.	111.85	16.30	24.32				.11	2.87	.89		156.34	156.34	42.57	42.53
Opelika to Roanoke, Ala.							15.76		20.36		36.12	36.12	3.16	3.05
Eufaula to Montgomery, Ala.							57.43		1.27		79.65	79.65	14.12	13.81
Eufaula to Ozark, Ala.							5.15		54.78	.05	59.98	59.98	6.00	2.62
Dover to Brewton, Ga.							9.92		34.95		77.02	77.02	6.01	6.13
Macon Junction to Athens, Ga.									101.78		101.78	101.78	8.22	8.05
Columbus, Ga., to Andalusia, Ala.							55.61	14.39	67.80	.16	137.96	137.96	17.46	17.18
Chickamauga to Durlam, Ga.	16.74						.80				17.54	17.54	3.78	3.78
Lyerly, Ga., to Toles Hollow, Ala.								1.54	7.83		9.37	9.37		
Total.....	391.73	16.30	139.29	42.57		279.06	78.60	17.26	424.21	3.51	1,392.53	1,392.53	342.44	332.40
Leased Main Track Operated:														
Augusta & Savannah Railroad—														
Millen to Augusta, Ga.				31.46		20.95			.50		53.21	53.21	16.54	15.33
The Southwestern Railroad—														
Macon, Ga., to Eufaula, Ala.	41.13				27.95	46.46		.72	27.34		143.60	143.60	49.29	46.68
Fort Valley to Columbus, Ga.	68.53		.18			1.95			.34		71.00	71.00	15.21	13.84
Fort Valley to Perry, Ga.									12.50		12.50	12.50	1.88	1.83
Smithville, Ga., to Columbia, Ala.						43.26	.97	3.02	21.21		85.70	85.01	18.31	17.49
Cuthbert to Fort Gaines, Ga.									20.50		20.50	20.50	3.98	3.05
Chattahoochee & Gulf Railroad—														
Columbia to Lockhart, Ala.						2.20	5.20	2.00	82.07		91.47	91.47	9.58	7.94
Total.....	109.66	.18	46.70	27.95	114.82	6.17	5.74	164.76			475.98	477.29	113.89	106.89
Owned Main Track Operated on Leased Right of Way:														
From Chattanooga Shops to connection with N. C. & St. L. Railway at Chattanooga.									.13		.13	.13		
Owned Second Track Operated:														
Hapeville to East Point, Ga.	2.63		.10								2.73	2.73		
Recapitulation:														
Owned Main Track Operated.....	391.73	16.30	139.29	42.57		279.06	78.60	17.26	424.21	3.51	1,392.53	1,392.53	342.44	332.40
Leased Main Track Operated.....	109.66	.18	46.70	27.95	114.82	6.17	5.74	164.76			475.98	477.29	113.89	106.89
Owned Main Track Operated on Leased Right of Way.....									.13		.13	.13		
Owned Second Track Operated.....	2.63		.10								2.73	2.73		
Total, June 30, 1906.....	504.02	16.30	139.47	89.37	27.95	393.88	84.77	23.00	589.10	3.51	1,871.37	1,871.37	456.33	439.29
Total, June 30, 1905.....	480.94	16.30	84.78	95.36	27.95	401.16	90.42	23.82	611.59	18.13	1,850.35	1,850.35	456.33	439.29
*Upson County Railroad; entire stock owned.														

BUILDINGS.

The bulk storage sheds for fertilizers on the Savannah Terminals were completed during the current year at a total cost of \$36,695.50, exclusive of \$2118.24 expended in providing fire protection for the same.

Combination freight and passenger depots were erected at Coffee Springs, Dozier, Slocumb and Lockhart, Alabama, and at Fort Oglethorpe, Mansfield and Raymond, Georgia.

An umbrella shed was constructed at Americus, Georgia, at a cost of \$3000.

Improvements were made to the Union Passenger Station at Albany, Georgia, our proportion of the expense amounting to \$1353.78.

The work of constructing an extension to Wadley Street Warehouse at Savannah, estimated to cost \$22,208.37, is nearly finished and will be completed in July, 1906.

A new shed for the storage of spirits, estimated to cost \$3650, under course of construction on the Savannah Terminals, will be completed in July, 1906.

A new class "B" depot was constructed at Louisville, Alabama, at a cost of \$1802.98, to replace building destroyed by fire on December 14, 1905.

A new class "C" depot was constructed at Cameron, Georgia, at a cost of \$1123.97, to replace building burned on January 15, 1905.

Many station buildings and section-houses have been remodeled and added to. Cinder pits, costing \$1970.50 and \$4075.25, respectively, were completed at Griffin and Macon, Georgia, during the year.

Turntable at Savannah Shops, costing \$2444.64, was installed during the year. There was expended on improving old and installing new water stations during the current year \$42,334.15, principally at Griffin, Industry, Jonesboro and Goggins, Georgia, and points on the Chattanooga District.

Payments of \$1350.11 were made for paving parts of streets of Atlanta and Macon, Georgia.

There was paid for the purchase of right of way and other real estate on the different divisions during the year \$48,302.63.

\$14,589.18 has been expended on roundhouse and tracks at Cedartown, Georgia, incident to the removal of these facilities from Chattanooga, Tennessee, representing about one-fifth of the work.

During the fiscal year 5,908,469 feet of timber (board measure) were used in constructing new buildings and platforms and in repairs and extensions to old buildings and platforms.

EQUIPMENT.

Five locomotives, included in Equipment Trust "F," were received July, 1905. Six locomotives were sold, three of which were narrow gauge.

Three locomotives were equipped with airbrakes. Current repairs on locomotives were as follows: 49 cost over \$1000 each; 70, between \$1000 and \$500 each; 187, less than \$500 each.

The cost of current repairs to locomotives in service averaged \$1510.51 each. The remaining ventilated box cars contracted for during the previous year under Equipment Trusts "F" and "G" were delivered in July, 1905.

Under Equipment Trust "H" the following cars were acquired during the year: 450 ventilated box cars of 30 tons capacity, 500 all-metal coal cars of 50 tons capacity, 400 flat cars of 30 tons capacity, 50 convertible ballast cars of 40 tons capacity.

Under Equipment Trust "I" of July 2, 1906, the following locomotives and cars were contracted for during the current year and will be delivered in time for next winter's business: 5 switching locomotives, 10 passenger locomotives, 25 freight locomotives, 1000 plain box cars of 30 tons capacity, 1000 all-metal coal cars of 50 tons capacity.

Fifty stock cars of thirty tons capacity were built at Savannah Shops during the year.

INVENTORY OF EQUIPMENT, JUNE 30.

Classes.	Owned.	Under equipment trusts.	Total June 30, 1906.	Total June 30, 1905.
Locomotives:				
Standard.....	291	51	342	289
Narrow Gauge.....				3
Total.....	291	51	342	292
Passenger Train Equipment:				
Sleeping Cars.....	12	3	15	15
Chair Cars.....	2		2	2
Passenger Cars.....	116	14	130	131
Combination Cars.....	2		2	2
Baggage, Mail and Express Cars.....	58		58	64
Total.....	211	19	230	229
Freight Train Equipment:				
Box Cars—Ventilated.....	2071	1450	3521	3092
Box Cars—Common.....	978	725	1703	1730
Stock Cars.....	34		34	45
Coal Cars.....	687	1675	2362	1974
Charcoal Cars.....	5		5	7
Coke Cars.....	14		14	15
Flat Cars.....	948	400	1348	1029
Total.....	4797	4250	9047	7895
Service Equipment:				
Officers' Cars.....	4		4	4
Inspection Cars.....	5		5	5
Caboose.....	90		90	90
Wrecking Cars.....	5		5	5
Unloading Cars.....	4		4	2
Spreader Cars.....	3		3	1
Tool Cars.....	3		3	3
Pump Repair Cars.....	3		3	3
Steam Shovels.....	4		4	2
Steam Pile Drivers.....	3		3	3
Ballast Cars.....	20	50	70	21
Cinder and Slag Cars.....	20		20	2
Plow Cars.....	2		2	2
Miscellaneous Roadway Cars.....	150		150	113
Total.....	365	50	415	263

SUMMARY AND ANALYSIS OF CHANGES DURING THE YEAR.

Classes.	On hand June 30, 1905.	New equipment received.	Transferred from other classes.	Total.	Condemned, destroyed or sold.	Transferred to other classes.	Total equipment June 30, 1906.
Locomotives.....	333	5		338	6		332
Passenger train equipment.....	229	6		235	3		232
Freight train equipment.....	7895	1514		9409	241	121	9047
Service equipment.....	263	55	123	441	26		415

CHANGES IN EQUIPMENT DURING 10 YEARS.

Classes.	On hand June 30, 1896.	Built and purchased new.	Acquired from other classes.	Transferred from other classes.	Total.	Condemned, destroyed or sold.	Transferred to other classes.	Total equipment June 30, 1906.
Locomotives.....	211	87	18		316	64		252
Passenger train equipment.....	206	37	12		255	13		232
Freight train equipment.....	4785	5089	395	51	10,261	1036	178	9047
Service equipment.....	255	114	1	182	552	93	45	415

GENERAL REMARKS.

Notwithstanding liberal expenditures for general improvements, we have had at times considerable difficulty to properly handle all business offered, but with the additional facilities authorized and increased number of locomotives and cars contracted for, we feel that we will be better able to take care of heavy traffic this fall.

For the faithful co-operation of all officers and employees the acknowledgments of the Company are due.

Respectfully,

T. S. MOISE, General Manager.

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended August 29, 1906.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	144 1/4	
Atlantic Coast Line of Conn.....	100	350	355
Georgia Southern & Florida.....	100	30	
Georgia Sou. & Fla. 1st Pfd.....	100	97 1/2	100
Georgia Sou. & Fla. 2d Pfd.....	100	78	85
Maryland & Pennsylvania.....	100	29	35
Norfolk Railway & Light.....	100	19	19
Seaboard Company Common.....	100	26 1/2	27 1/2
Seaboard Company 1st Pfd.....	100	85	90
United Railways & Elec. Co.....	50	14 1/2	15 1/4

Bank Stocks.			
Citizens' National Bank.....	10	28	29
Commercial & Far. Nat. Bank.....	100	135	
Com. & Far. Nat. Bk. Blue Chfs.....	100	140	100
Drovers & Mech. Nat. Bank.....	100	240	
First National Bank.....	100	135	140
Merchants' National Bank.....	100	178	
National Bank of Baltimore.....	100	114 1/4	
National Howard Bank.....	10	12 1/2	
National Marine Bank.....	20	38	
National Mechanics' Bank.....	10	27	28
Third National Bank.....	100	122	
Western National Bank.....	20	37	

Trust, Fidelity and Casualty Stocks.			
American Bonding & Trust.....	50	45	50
Continental Trust.....	100	192 1/2	196
Fidelity & Deposit.....	50	137	142
International Trust.....	100	100	
Mercantile Trust & Deposit.....	50	145	
Security Storage & Trust.....	100	126	
U. S. Fidelity & Guaranty.....	100	125	

Miscellaneous Stocks.			
Alabama Con. Coal & Iron.....	100	62 1/2	70
Ala. Con. Coal & Iron Pfd.....	100	31	34
Consol. Cotton Duck Common.....	50	13	13 1/2
Consol. Cotton Duck Pfd.....	50	35	37
Consolidation Coal.....	100	94	95 1/4
G. B. & S. Brewing Co.....	100	95	10
Georgia's Creek Coal.....	100	75	80

Railroad Bonds.			
Albany & Northern 5s, 1916.....	101		
Atlanta & Charlotte 1st 7s, 1907.....	101		
Atlan. Coast Line 1st Con. 4s, 1932.....	101	101 1/2	
Atlantic Coast Line (Conn.) 5s.....	110		
Char., Col. & Aug. 2d 7s, 1910.....	108		
Columbia & Greenville 1st 6s, 1916.....	112 1/2	113 1/4	
Georgia & Alabama 5s, 1915.....	108 1/2	109 1/2	
Georgia, Fla. & North, 1st 5s, 1929.....	108 1/2	110	
Georgia Pacific 1st 6s, 1915.....	114		
Georgia South. & Fla. 1st 5s, 1915.....	109	112 1/4	
Maryland & Pennsylvania 4s, 1911.....	107 1/2		
Petersburg, Class A 5s, 1926.....	111		
Petersburg, Class B 6s, 1926.....	125		
Piedmont & Cum. 1st 5s, 1911.....	107 1/2		
Potomac Valley 1st 5s, 1911.....	116		
Raleigh & Augusta 1st 6s, 1928.....	112 1/2		
Savannah, Fla. & West 5s, 1914.....	112 1/2		
Seaboard Air Line 5s, 1910.....	86 1/2		
Seaboard Air Line 5s, 10-year, 1911.....	102	102 1/2	
Silver Sprngs, Ocala & Gulf 4s, 1918.....	96	98	
Virginia Midland 1st 6s, 1906.....	106		
Virginia Midland 5th 5s, 1926.....	110		
Western Maryland new 4s, 1932.....	84	84 1/2	
West. North Carolina Con. 6s, 1914.....	111		
West. Virginia Central 1st 6s, 1911.....	106 1/4		
Wilmington, Col. & Aug. 5s, 1910.....	105		
Wilmington & Wel. Gold 5s, 1935.....	112		

Street Railway Bonds.			
Anacostia & Potomac 5s, 1919.....	104 1/2	105	
Angusta Rwy. & Elec. 5s, 1940.....	104 1/2	105	
Baltimore City Passenger 5s, 1911.....	104 1/2	105	
Central Ry. Con. 5s (Balt.), 1932.....	114		
Charleston City Railway 5s, 1923.....	104		
Charleston Con. Electric 5s, 1909.....	97	98	
City & Suburban 5s (Balt.), 1922.....	110	110 1/2	
City & Suburban 5s (Wash.), 1948.....	102 1/2	103	
Lake Roland Elev. 5s (Balt.), 1942.....	117		
Lexington Railway 1st 5s, 1919.....	101	102 1/4	
Macon Rwy. & Lt. 1st Con. 5s, 1933.....	99	100 1/4	
Norfolk Railway & Light 5s.....	99	100 1/4	
United Railways 1st 4s, 1919.....	91 1/4	91 3/4	
United Railways Inc. 4s, 1919.....	69 1/4	69 3/4	

Miscellaneous Bonds.			
Consolidated Gas 6s, 1910.....	105		
Consolidated Gas 4 1/2s, Cfs.....	99	99 1/4	
G. B. & S. Brewing 1st 3-4s.....	62 1/2	63	
G. B. & S. Brewing 2d Income.....	37 1/4	39	
Mt. V. & Woodly Cot. Duck 5s.....	86 1/4	86 1/2	

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending August 27.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	85	
Alken Mfg. Co. (S. C.).....	85	91
Anderson Cotton Mills (S. C.).....	100	104
Arkwright Mills (S. C.).....	123	
Augusta Factory (Ga.).....	80	85
Avondale Mills (Ala.).....	105	110
Belton Mills (S. C.).....	104	105
Bibb Mfg. Co. (Ga.).....	112	120
Calmar Cotton Mills (N. C.) new.....	120	
Chadwick Mfg. Co. (N. C.) Pfd.....	102	
Chilquola Mfg. Co. (S. C.).....	92	95
Clifton Mfg. Co. (S. C.).....	122	125 1/4
Clifton Mfg. Co. (S. C.) Pfd.....	103	
Clinton Cotton Mills (S. C.).....	138	145
Columbus Mfg. Co. (Ga.).....	96	101
Courtenay Mfg. Co. (S. C.).....	100	
Dallas Mfg. Co. (Ala.).....	92	95
Darlington Mfg. Co. (S. C.).....	129	
Eagle & Phenix Mills (S. C.).....	130	
Enslay Cotton Mills (S. C.).....	133	
Enoree Mfg. Co. (S. C.).....	85	
Enoree Mfg. Co. (S. C.) Pfd.....	99	100 1/4
Enterprise Mfg. Co. (Ga.).....	86	92
Exposition Cotton Mills (Ga.).....	200	
Gaffney Mfg. Co. (S. C.).....	90	92
Galveston Cotton Mills (S. C.).....	33 1/2	40
Granby Cot. Mills (S. C.) 1st Pfd.....	59	64
Granville Mfg. Co. (S. C.).....	160	165
Greenwood Cotton Mills (S. C.).....	95	98
Grendel Mills (S. C.).....	112	125
Henrietta Mills (N. C.).....	280	
King Mfg. Co. John P. (Ga.).....	97	103

Lancaster Cotton Mills (S. C.).....	99	104
Lancaster Cot. Mills (S. C.) Pfd.....	97	99
Langley Mfg. Co. (S. C.).....	92	96
Laurens Mfg. Co. (S. C.).....	106	113
Limestone Mills (N. C.).....	115	
Lockhart Mills (S. C.).....	102	
Lockhart Mills (S. C.) Pfd.....	97	100
Louise Mills (N. C.).....	90	95
Louise Mills (N. C.) Pfd.....	102	
Marlboro Cotton Mills (S. C.).....	78	90
Mayo Mills (N. C.).....	155	185
Mills Mfg. Co. (S. C.).....	105	110
Mills Mfg. Co. (S. C.) Pfd.....	100	
Monaghan Mills (S. C.).....	96 1/2	101
Monarch Cotton Mills (S. C.).....	94	101
Newberry Cotton Mills (S. C.).....	118	
Norris Cotton Mills (S. C.).....	106	110
Odel Mfg. Co. (S. C.).....	82	88
Olympia Cotton Mills (S. C.) Pfd.....	80	
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	97
Orr Cotton Mills (S. C.).....	103	104
Pacolet Mfg. Co. (S. C.).....	190	200
Pacolet Mfg. Co. (S. C.) Pfd.....	100	104
Pelzer Mfg. Co. (S. C.).....	170	173
Pelzer Mfg. Co. (S. C.) Pfd.....	167	171
Poe Mfg. Co. (S. C.).....	122	125
Ridgely Cotton Mills (N. C.).....	51	56
Ridgely Cotton Mills (N. C.) Pfd.....	99	105
Ronoke Mills (N. C.).....	106	140
Saxon Mills (S. C.).....	103	105
Sibley Mfg. Co. (Ga.).....	64	68
Southern Cotton Mills (S. C.).....	145	151
Spartan Mills (S. C.).....	145	151
Springstein Mills (S. C.).....	140	
Trion Mfg. Co. (Ga.).....	152	
Tucpau Mills (S. C.).....	165	
Victor Mfg. Co. (S. C.).....	115	117
Warren Mfg. Co. (S. C.).....	97	100
Warren Mfg. Co. (S. C.) 1st Pfd.....	105	107
Washington Mills (Va.).....	25	
Washington Mills (Va.) Pfd.....	145	150
Winney Mfg. Co. (S. C.).....	145	150
Wiscasset Mills (N. C.).....	122	135
Woodruff Cotton Mills (S. C.).....	105	106

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending August 27.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	85	
Aetna Cotton Mills (S. C.) Pfd.....	70	
Aiken Mfg. Co. (S. C.).....	82	89
American Spinning Co. (S. C.).....	120	125
Anderson Cotton Mills (S. C.).....	100	106
Arendia Mills (S. C.).....	87	92
Arkwright Cotton Mills (S. C.).....	122	
Augusta Factory (Ga.).....	80	85
Avondale Mills (Ala.).....	100	108
Belton Mills (S. C.).....	105	108
Bibb Mfg. Co. (Ga.).....	112	120
Branden Mills (S. C.).....	117	
Brogan Mills (S. C.).....	77	80
Calmar Cotton Mills (N. C.).....	120	
Chadwick Mfg. Co. (N. C.) Pfd.....	103	
Chilquola Mfg. Co. (S. C.).....	93	95
Clifton Mfg. Co. (S. C.).....	120	125
Clifton Mfg. Co. (S. C.) Pfd.....	103	
Clinton Cotton Mills (S. C.).....	140	145
Columbus Mfg. Co. (Ga.).....	94	97
Courtenay Mfg. Co. (S. C.).....	100	
Dallas Mfg. Co. (Ala.).....	90	
Darlington Mfg. Co. (S. C.).....	117	
D. E. Converse Co. (S. C.).....	117	
Eagle & Phenix Mills (Ga.).....	129	
Enslay Cotton Mills (S. C.).....	130	136
Enoree Mfg. Co. (S. C.).....	82	86
Enoree Mfg. Co. (S. C.) Pfd.....	100	103
Enterprise Mfg. Co. (Ga.).....	82	90
Exposition Cotton Mills (Ga.).....	174	200
Gaffney Mfg. Co. (S. C.).....	90	95
Galveston Cotton Mills (Ga.).....	35	
Glenwood Cotton Mills (S. C.).....	102	104
Gluck Mills (S. C.).....	92	94
Granby Cot. Mills (S. C.) 1st Pfd.....	59	64
Granville Mfg. Co. (S. C.).....	155	165
Greenwood Cotton Mills (S. C.).....	92	95
Grendel Mills (S. C.).....	110	114
Hartsville Cotton Mills (S. C.).....	92	97
Henrietta Mills (N. C.).....	201	
Inman Mills (S. C.).....	95	97
King Mfg. Co. J. P. (Ga.).....	97	103
Lancaster Cotton Mills (S. C.).....	102	110
Lancaster Cot. Mills (S. C.) Pfd.....	95	99
Langley Mfg. Co. (S. C.).....	92	96
Laurens Mfg. Co. (S. C.).....	105	115
Limestone Mills (S. C.).....	104	
Lockhart Mills (S. C.).....	97	103
Lockhart Mills (S. C.) Pfd.....	101	
Loray Cotton Mills (N. C.) Pfd.....	89	93
Louise Mills (N. C.).....	94	
Louise Mills (N. C.) Pfd.....	102	
Marlboro Cotton Mills (S. C.).....	84	
Mayo Mills (N. C.).....	150	200
Mills Mfg. Co. (S. C.).....	102	
Mills Mfg. Co. (S. C.) Pfd.....	99	101
Molloy Mfg. Co. (S. C.).....	87	95
Monaghan Mills (S. C.).....	97	101
Monarch Cotton Mills (S. C.).....	87	
Newberry Cotton Mills (S. C.).....	115	
Ninety-Six Cotton Mills (S. C.).....	92	97
Norris Cotton Mills (S. C.).....	106	
Odel Mfg. Co. (N. C.).....	90	
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	101
Orr Cotton Mills (S. C.).....	100	104
Pacolet Mfg. Co. (S. C.).....	102	104
Pacolet Mfg. Co. (S. C.) Pfd.....	167	174
Piedmont Mfg. Co. (S. C.).....	167	
Poe Mfg. Co. F. W. (S. C.).....	120	125
Ridgely Cotton Mills (N. C.).....	100	
Ridgely Cot. Mills (S. C.) Pfd.....	118	
Ronoke Mills (S. C.).....	104	106
Saxon Mills (S. C.).....	58	63
Sibley Mfg. Co. (Ga.).....	58	
Southern Cotton Mills (N. C.).....	80	
Spartan Mills (S. C.).....	142	150
Springstein Mills (S. C.).....	132	140
Trion Mfg. Co. (Ga.).....	162	
Tucpau Mills (S. C.).....	115	
Victor Mfg. Co. (S. C.).....	95	102
Vavren Mfg. Co. (S. C.).....	95	107
Warren Mfg. Co. (S. C.) Pfd.....	17	22
Washington Mills (Va.).....	93	95
Washington Mills (Va.) Pfd.....	145	
Whitney Mfg. Co. (S. C.).....	119	125
Wiscasset Mills (N. C.).....	119	125
Woodruff Cotton Mills (S. C.).....	105	110

It is reported that on October 1 the capital of the First National Bank of Lynchburg, Va., will be increased from \$500,000 to \$1,000,000.

The assessed values of property in Georgia are \$624,465,472, an increase over 1905 of more than \$46,625,000.

New Corporations.

The Pearson Banking Co. is reported being organized at Pearson, Ga., with \$30,000 capital.

The Waldron Bank has been incorporated at Waldron, Mo., with \$5000 capital, by John C. Hughes and others.

It is reported that a bank to be known as the Merchants and Farmers' Bank is to be established at Stanley, N. C.

A banking and trust company is being organized at Pensacola, Fla., with \$200,000 capital, by T. L. Gant, O. L. Bass and others.

The People's Bank of Bamberg, S. C., has been chartered with \$25,000 capital. H. C. Folk is president and W. P. Riley cashier.

The Farmers' State Bank is being organized at Hyde Valley, Mo., with \$10,000 capital. W. J. Klepper has been elected cashier.

The Bank of Troutdale has been chartered at Troutdale, Va., with \$10,000 capital, by J. H. Carrico, I. B. Bryant and D. J. Busie.

The Bank of Ninety-Six at Ninety-Six, S. C., has been granted a charter; capital \$50,000. W. O. Self is president and H. P. Galpin cashier.

The Winters State Bank, capital \$10,000, has been organized at Winters, Texas, with J. M. Johnson, president, and J. Q. McAdams, cashier.

It is reported that a new bank is to be established at Brunswick, Ga., by interests connected with the Atlanta, Birmingham & Atlantic Railway Co.

A new bank to be known as the Monroe Banking & Mercantile Co. of Honea Path, S. C., is being organized with \$35,000 capital by J. F. and R. A. Monroe.

A new bank with from \$5000 to \$50,000 capital has been opened at Gloucester Point, Va. L. E. Mumford is president, and Myon E. Bristow, cashier.

The Jackson Loan & Trust Co. of Jackson, Miss., has been incorporated with \$100,000 capital by H. F. Crisler, R. O. Edwards, F. A. Ward and others.

The Farmers' Bank of McCormick, S. C., has been granted a commission; capital \$25,000. The incorporators are J. C. Harmon, J. J. Andrews and J. C. Brown.

The Palmetto Bank of Laurens, S. C., has been granted a commission; capital \$50,000. The incorporators are M. J. Owings, J. C. Owings, R. B. Bell and J. J. Pluss.

Articles of incorporation for the Bank of Ashford at Ashford, Ala., capital \$25,000, have been filed by F. A. Guinsley, A. M. Guinsley, J. C. Guinsley and E. M. Guinsley.

The Champion State Bank of Canton, N. C., capital \$10,000, has elected the following officers: G. W. Masin, president; W. J. Hampton, vice-president, and O. H. Hampton, cashier.

The Dill State Bank of Dill, Okla., has been authorized to begin business with \$10,000 capital. I. G. Thurmond is president; A. L. Thurmond, vice-president, and T. D. Flournoy, cashier.

Hambleton & Co.

BANKERS and BROKERS.
Members New York and Baltimore Stock Exchanges.
10 S. CALVERT STREET, BALTIMORE, MD.
High-grade Investment Bonds, Municipal, Railway, Industrial.
LETTERS OF CREDIT, AVAILABLE EVERYWHERE.

Hugh MacRae & Co.

Bankers,
MISCELLANEOUS SOUTHERN SECURITIES
COTTON MILL STOCKS,
WILMINGTON, N. C.
WASHINGTON, D. C. 406 Colorado Bldg.

BONDING is our EXCLUSIVE SPECIALTY

and we issue all kinds.



CONTRACT JUDICIAL
FIDELITY OFFICIAL
COURT

ALSO BURGLARY INSURANCE

UNITED SURETY CO., BALTIMORE, MD.

GEORGE G. BROWN, General Manager

New York Office, 146 Broadway Chicago Office, 902 Borland Bldg. Cleveland Office, 506 Chamber of Commerce Bldg.

WESTERN**Bank Note and Engraving Co. CHICAGO**

Engravers, Lithographers, Printers,
Bank Notes, Bonds, Stock Certificates,

and other documents requiring protection against counterfeiting and reproduction.

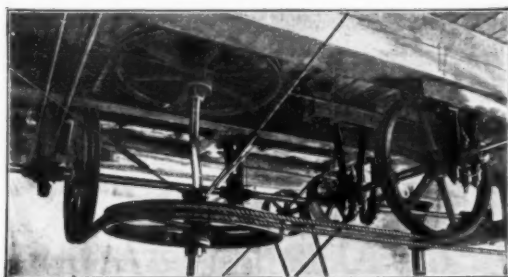
Drafts, Checks, Bills of Exchange, Letters Credit, etc., of Improved Styles

BANK, CORPORATION AND MUNICIPAL WORK A SPECIALTY

Modernly constructed fire-proof buildings, containing securities vaults and unequalled equipment, occupied exclusively by this Company.

LA RUE R. COPPAGE, Manager Baltimore Office
515 EQUITABLE BUILDING

Americans
THE AMERICAN MFG. CO.
MANILA - SISAL - JUTE - CORDAGE
65 WALL ST., NEW YORK



40 H. P. Angle Drive through 16" I Beam

Rope Driving is the cheapest and most economical
of all methods for the transmission of power.

AMERICAN TRANSMISSION ROPE

stretched in process of manufacture, will do more work, do it longer, with less expense than any other rope.

AMERICA BALE ROPE is the cheapest and best agent for baling textile fabrics.

We make a specialty of oil well cordage, lath and fodder yarn and hoisting rope.

Write for prices and samples.

"THE BLUE BOOK OF ROPE TRANSMISSION"
Sent free upon request.

INTERNATIONAL TRUST CO.

OF MARYLAND

BALTIMORE, MD.

Capital and Surplus, \$2,779,359.57

MAKES A SPECIALTY OF SOUTHERN BUSINESS

PRIVATE, State and National Bank Accounts. Cotton Mill Accounts. Estate Administration. Accounts Invited from General Manufacturers and Business Men. High-Class Bonds and Other Forms of Investment. Interest Allowed on Deposits Subject to Check and Special Rates Made on Time Deposits. Your Business is Solicited. Correspondence Invited.

OFFICERS

DOUGLAS H. GORDON,
President.
SUMMERFIELD BALDWIN,
Vice-President.
SAMUEL C. ROWLAND,
Vice-President.
CHAS. D. FENHAGEN,
Secretary and Treasurer.
WALTER D. FOCKE,
Asst. Secy. and Asst. Treas.

EXECUTIVE COMMITTEE

ISAAC H. DIXON, Chairman.
SUMMERFIELD BALDWIN,
RICHARD H. EDMONDS,
SAMUEL C. ROWLAND,
WM. C. SEDDON,
DOUGLAS H. GORDON,
STEVENSON A. WILLIAMS,

Southern Representative: Edward S. Mumford, Candler Building, Atlanta, Ga.

A Progressive and Conservative Trust and Banking Institution.

WHEN ABOUT TO

INCORPORATE

Write for fourth edition of
"Pointers on Delaware Corporation." Official forms,
estimates of cost and copies
of the amended law.

DELAWARE TRUST COMPANY

WILMINGTON, DELAWARE

EMPIRE CITY AUDIT CO.

Chartered Public Accountants

Organizers, Underwriters, Financiers

No. 1 Madison Ave., New York City
Correspondence invited

John L. Williams & Sons

Cor. 9th & Main Sts. BANKERS RICHMOND, VA.
DEALERS IN

HIGH-CLASS SECURITIES

Negotiate Entire Issues of Bonds for States, Cities
and Railroad Corporations
Foreign Exchange Bought and Sold.

INDUSTRIAL BONDS

Correspondence solicited with owners of successful enterprises desiring to bond their plants. Principal to be refunded in annual installments. Exclusive control absolutely necessary. In business fifteen years, dealers in Southern Municipal Securities and Loans on Improved City Real Estate. References, all City Banks.

F. M. STAFFORD & CO., Chattanooga, Tenn.

C. P. Bolles & Company

415 Southern Bldg., Wilmington, N. C.

DEALERS IN SOUTHERN COTTON
MILL AND BANK STOCKS

SOUTHERN MILL STOCKS

AND OTHER

HIGH GRADE INVESTMENTS

FOR SALE BY

F. C. ABBOTT & CO.
CHARLOTTE, N. C.

WADE B. LEONARD,

Miscellaneous Southern Stocks,
DALLAS, TEXAS.

* FOR SALE—National bank stock paying five to 15 per cent. Controlling stock national bank, capital and surplus \$180,000. Controlling stock cotton oil mill and refinery earning 30%. Attractive investments always on my list. Send for it.

JOHN NUVEEN & CO.

1st Nat. Bank Bldg., CHICAGO.

We Purchase SCHOOL, COUNTY and MUNICIPAL BONDS. Southern Municipal Bonds a Specialty.

Write us if you have bonds for sale.

Street Railway Bonds.

The stability of such bonds is largely dependent upon density of traffic, and purchases should be preferably restricted to issues secured upon well-managed properties located in the larger cities. Depreciation charge of from 5 per cent. to 10 per cent. of gross earnings should be recorded against income prior to fixed charges. Properly selected bonds of this class constitute liens upon properties having values intrinsically as great as those of many of the leading railroads.

Write for our offerings.

Spencer Trask & Co.

William and Pine Streets, New York.
Baltimore Correspondents:
Harrison & House,
414 Continental Trust Building.

SURETY BONDS**Fidelity and Deposit Co. OF MARYLAND**

Home Office, - BALTIMORE, MD.

Assets Over \$5,000,000

Pioneer Surety Co., of the South.
Becomes Surety on Bonds of every description.

AGENTS IN ALL PRINCIPAL CITIES

HARRY NICODEMUS, Sec'y and Treas. EDWIN WARFIELD, President.

L. P. WALKER, JR. L. P. WALKER, SR.
L. P. WALKER, JR., & CO.

Miscellaneous Southern Securities
Cotton Mill and Bank Stocks

References, all City Banks.

SPARTANBURG, S. C.

**GO SOUTH!**

For Business Opportunities, Investment Securities, Real Estate, Timber Mines, Industrial Properties and Farm, Town or City Mortgages in all parts of the South, correspond with

METROPOLITAN INVESTMENT CO.
GEO. B. EDWARDS, President, Charleston, S. C.
Branch Offices in New York and London.

Jacob Phinlay, Pres. Chas. G. Goodrich, Cash.
Wm. A. Latimer, V. P. Rufus H. Brown, A. Cash.

Georgia Railroad Bank, AUGUSTA, GA.

Capital \$200,000 Undivided Profits, 290,000
Prompt and Reliable Service Guaranteed.

The Bank of Levasy, capital \$10,000, has been organized at Levasy, Mo. S. H. Chiles is president, and H. W. Bickel, vice-president.

A new bank with \$30,000 capital has been organized at Milan, Ga. The directors are: President, L. O. Benton; vice-president, Dr. H. S. Maloy; cashier, L. E. Jones; S. J. Meadows, J. M. Rawlins, S. C. Jones, A. W. Drew, G. W. Meadows and W. J. Studstill.

The Citizens' National Bank of Commerce, I. T., has organized with the following officers: T. C. Phillips, president; J. C. Massey, vice-president; F. G. Dennis, cashier; J. B. Leach, J. F. Packle, J. T. Morris, A. R. Tankersley, R. W. King, A. L. Branch, directors. Business is expected to begin September 15.

The Suburban Bank of Baltimore county, Maryland, recently incorporated, will open offices at Hamilton on September 1 and at Lauraville September 3. The officers are: President, William McCallister; vice-president, Charles H. Knox; secretary, Clarence H. Bradfield; treasurer, Joseph S. MacWilliams; attorney, Christopher R. Wattenscheidt.

The Bank of Cheriton has been incorporated at Cheriton, Va., with \$50,000 capital. The incorporators are J. Gates Goode, George W. Huff, Cheriton; Samuel Townsend, vice-president, Townsend; Eber V. Downes, Capeville; Marriion Scott, Seaview; W. M. Upshur, president, Cheriton; Gardiner R. Nottingham, Eastville; W. D. Nottingham, Cheapside.

The Marion State Bank of Marion, Texas, capital \$25,000, has been organized with the following officers: Herman D. Dreyer, president; Louis Hirschfeld, first vice-president; Arlon B. Davis, second vice-president; Henry Wimmer, cashier; directors, William Winkelmann, Edmond Pfeil, Henry L. Zuehl, L. Kuehler, W. J. Schneider, Arlon Davis, R. E. Kloepper.

The Ausley & Spengler Company, which proposes to do a general brokerage business, with \$100,000 capital, has published its charter. The principal office of the company will be at Pensacola, Fla., and the temporary offices are J. J. Spooner, president; N. L. Spengler, secretary and treasurer, and J. J. Spooner, N. L. Spengler, F. S. King and T. A. Ausley, directors.

The Union Bank & Trust Co. of Monroe, La., capital \$100,000, has been organized with the following directors: J. G. Trimble, president; I. Baer, vice-president; H. D. Appar, cashier; O. O. Clark, W. R. Mitchell, L. N. Larche, J. J. Lowrey, V. C. Barringer, R. A. Shotwell, W. H. De Grafenreid, F. G. Hudson and W. E. Allen. Business is to begin about November 1.

The directors of the Suburban Trust & Building Co. of Govanstown, Md., are Dr. H. C. Hess, president; H. C. Shryock, vice-president; George W. Henderson, treasurer; Samuel Collmus, secretary; M. P. Kehoe, solicitor; Dr. G. H. Hocking, Harry H. Medinger, Allen K. Wood, Jacob S. Hopkins, Hugh Gallagher and Dr. Jacob S. Parr. Business is to begin about September 1.

New Securities.

Arlington, Ga.—The city has voted to issue \$25,000 of 5 per cent. water-works and electric-light bonds.

Beaumont, Texas.—An ordinance providing for an election to decide the question of issuing \$30,000 of school, \$75,000 of paving and \$25,000 of sewer bonds is reported to have been introduced in the city council.

Austin, Texas.—The State Board of Education has purchased bonds as follows: \$15,000 5 per cent. Granger independent school district bonds, \$3000 5 per cent. Trent independent school district bonds, \$13,000 4 per cent. Sabine county

courthouse bonds, \$7500 4 per cent. Karnes county bridge bonds and \$11,500 5 per cent. Royse independent school district bonds.

Beaumont, Texas.—The question of issuing \$50,000 of 4 per cent. 40-year park bonds is reported being considered.

Beggs, I. T.—The \$7000 of school bonds recently approved are reported sold to R. J. Edwards of Oklahoma City, Okla.

Bessemer, Ala.—Notice is given that a meeting of the stockholders of the Bessemer Coal, Iron & Land Co. will be held September 1 to act on the question of issuing bonds not to exceed \$250,000.

Boynton, I. T.—The \$10,000 of school bonds have been approved.

Chatham, Va.—Mr. James L. Tredway is reported to have purchased at a premium of \$150 the \$17,500 of improvement bonds.

Chattanooga, Tenn.—The Montlake Coal Co. is reported to have filed a mortgage with the Administration & Trust Co. to secure an issue of \$22,000 of 6 per cent. 10-year bonds.

Chattanooga, Tenn.—It is reported that the Chattanooga B. P. O. E. Social Club will issue \$30,000 of 5 per cent. bonds for erecting clubhouse.

Clearwater, Fla.—An election is to be held in Hillsborough county to vote on the question of issuing \$12,000 of school-building bonds. Address county board of public instruction.

Clinton, Mo.—The \$100,000 of 4 per cent. 5-20-year electric-light and water-works bonds are reported being offered at private sale by J. H. Kyle, agent.

Coalgate, I. T.—The city recently voted to issue \$71,000 of water-works and school bonds.

Columbia, Mo.—It is stated that the \$30,000 of school bonds recently registered were defeated.

Cordele, Ga.—The city has voted to issue \$80,000 of Crisp county courthouse and jail bonds.

Dallas, Texas.—It is reported that no satisfactory bids were received August 15 for the school, street and jail bonds.

De Funiak Springs, Fla.—The question of holding an election to vote on water-works bonds is reported being considered by the city council.

Eagle Pass, Texas.—It is stated that an election is to be held to vote on \$30,000 of school-building bonds.

Euru, Miss.—Mr. M. J. White is reported to have purchased at par the \$4000 of 5 per cent. 5-20-year school-building bonds.

Elkins, W. Va.—Application will be made to the legislature for permission to issue \$60,000 of building bonds.

Enid, O. T.—The city has voted to issue \$20,000 of 10-20-year school-building bonds to bear 5 or 6 per cent. interest, and bids for same will be received by the board of education until September 3. E. L. Swigert is president and J. P. Marshall clerk of the board.

Ensley, Ala.—An election is to be held, it is reported, to vote on \$40,000 of sewer and \$25,000 of high-school bonds.

Fairmont, W. Va.—The Monongahela Industrial Co. has issued, it is reported, \$300,000 of first and \$100,000 of second mortgage bonds.

Fulton, Mo.—City Treasurer W. F. Russell is reported as stating that the date of receiving bids for \$20,000 of water and light bonds has been changed from October 1 to September 1.

Gadsden, Ala.—It is stated that bids will soon be asked for the \$15,000 of school bonds.

Gantt's Quarry, Ala.—The Alabama Cream White Marble Co. has been authorized to issue \$500,000 of bonds, of which \$350,000 will be floated in the near future.

Guymon, O. T.—An issue of \$10,000 of building bonds has been voted.

FISK & ROBINSON

BANKERS

Government Bonds

and other

Investment Securities

MEMBERS NEW YORK STOCK EXCHANGE

35 CEDAR STREET

NEW YORK

28 STATE STREET

BOSTON

SAVANNAH TRUST CO.

13 BAY STREET, EAST,
SAVANNAH, GA.

Capital, - - - \$500,000.00
Surplus and Undivided Profits, \$145,000.00

Transacts a general trust and banking business.
Foreign exchange bought and sold.
Collections promptly accounted for.

OFFICERS:

WM. W. MACKALL, - - - President
GEO. J. BALDWIN, - - - Vice-President
WM. V. DAVIS, - - - Sect'y and Treas.
JNO. H. STROUS, - - - Asst. Sect'y and Treas.

Subscribe to the MANUFACTURERS' RECORD.
Price \$4 a year, or six months for \$2.

GEORGE WILKINSON, C. P. A.

ERNEST RECKITT, C. P. A.

WILKINSON, RECKITT, WILLIAMS & CO.

CERTIFIED PUBLIC ACCOUNTANTS

52 Broadway
NEW YORK CITY

Marquette Bldg.
CHICAGO

Stephen Girard Bldg.
PHILADELPHIA

CORRESPONDENCE INVITED

THE AUDIT COMPANY OF NEW YORK

EXAMINATIONS APPRAISALS AUDITS

Investigations for Merchants, Bankers, Corporations and Committees

New York

Mutual Life Buildings, 43 Cedar Street

Chicago,

New York Life Building

Boston,

Easton Building

Philadelphia,

Arcade Building

Capital for Southern Enterprises

Electric and Steam Railroads
Mining Enterprises

Manufacturing Industries
Real Estate Propositions

Connection in New York, London, Paris, Berlin

JOHN J. WATSON, Attorney at Law

Suite 763 to 769 Calvert Bldg.

Baltimore, Maryland

"The Best of Financial References Furnished"

MIDDENDORF, WILLIAMS & CO.

BANKERS

North and Fayette Sts.,

Baltimore, Md.

INVESTMENT SECURITIES

H. M. BYLLESBY & CO.

INCORPORATED

ENGINEERS

DESIGN, CONSTRUCT AND OPERATE RAILWAY, LIGHT, POWER, HYDRAULIC AND GAS PLANTS

EXAMINATIONS AND REPORTS

AMERICAN TRUST BUILDING, CHICAGO

THE ROBERTS & ABBOTT CO.

E. P. ROBERTS

ENGINEERS

W. H. ABBOTT

Electric Railways, Light and Power, Water Power Development, Complete Industrial Plants

CLEVELAND

PHILADELPHIA

BALTIMORE

BIRMINGHAM

Harper's Ferry, W. Va.—The Harper's Ferry Lime Co. is reported to have arranged to float \$60,000 of bonds.

Huntsville, Texas.—The \$8000 of 4½ per cent. 10-30-year water-works refunding bonds have been approved and registered.

Keyser, W. Va.—The election to vote on \$50,000 of Mineral county courthouse bonds is to be held September 18.

Leesburg, Va.—The city has voted to issue \$30,000 of water-works bonds.

Loganville, Ga.—Bids for the \$10,000 of 5 per cent. 20-30-year school-building bonds will be received until 8 P. M. August 30. W. O. Bennett is mayor.

Louis, Ky.—It is reported that arrangements are being made to issue \$4000 of Kentucky Normal College site bonds.

Malone, Texas.—Major Hugh N. Swain of Dallas is reported to have purchased at \$7050 and interest the \$7000 of 5 per cent. 10-40-year school bonds recently approved.

Manassas, Va.—Bids will be received by O. F. Newman, chairman bond committee, until September 19 for \$50,000 of 4 per cent. 20-year water, light and street-improvement bonds.

Maysville, Ky.—The following banks of Maysville are reported to have purchased the \$40,000 of street-improvement bonds: Mitchell, Finch & Co.'s, the State National, First National and Bank of Maysville.

Memphis, Tenn.—It is reported that the Memphis Brewing & Malting Co. contemplates issuing \$15,000 of 5 per cent. 20-year bonds.

Molena, Ga.—Mr. J. L. Fogg of Molena has been awarded at \$4050 the \$4000 of 6 per cent. school-building bonds.

Montgomery, Ala.—Hon. W. M. Teague, mayor, informs the MANUFACTURERS' RECORD that all paving bonds which have been or will be issued by the city this year have been disposed of. He also says that the city contemplates issuing \$500,000 of 4 per cent. refunding bonds.

Morgantown, W. Va.—No satisfactory bids were received August 17 for the \$70,000 of 4½ per cent. funding, sewer and paving bonds, and it is stated proposals for same will be received at any time.

Opelousas, La.—It is stated that the election to vote on \$30,000 of paving bonds failed to carry.

Phoebus, Va.—The city has voted to issue \$40,000 of paving bonds.

Port Tampa, Fla.—It is reported that an election will soon be held to decide the question of issuing \$15,000 of Bayshore boulevard extension bonds.

Quannah, Texas.—An election is to be held September 15 to decide the question of issuing \$50,000 of Hardeman county courthouse bonds.

Ravia, I. T.—It is stated that no satisfactory bids were received August 15 for the \$4000 of 5 per cent. building bonds, and that proposals are still being received.

Rayne, La.—A proposition to issue \$40,000 of public improvement bonds is reported being considered.

San Antonio, Texas.—The attorney-general has approved \$300,000 of 4½ per cent. 20-40-year refunding bonds.

Senatobia, Miss.—Bids for the \$4000 of 5½ per cent. 5-20-year water bonds will be received until October 1. H. I. Gill is town clerk.

St. Joseph, Mo.—A bill is said to have been introduced in the council providing for an issue of \$35,000 of 4 per cent. funding judgment bonds.

Terrell, Texas.—The city recently voted to issue \$15,000 of electric-light bonds.

Thomasville, Ga.—An election is to be held September 10 to vote on the question of issuing \$18,000 of sewer bonds. Some time ago the city voted \$25,000 of bonds for this purpose, but later found that the work could be done for \$18,000. It is stated the Southern States Life Insurance Co. of Atlanta will take the bonds.

Virginia Beach, Va.—An issue of \$72,000 of sewer and sidewalk bonds has been voted.

Williamstown, Ky.—The \$70,000 of 4 per cent. Grant county bonds have been purchased by W. R. Todd & Co. of Cincinnati.

Financial Notes.

Memphis, Tenn., is reported to have redeemed \$100,000 of the Flippin compromise bonds.

The Border National Bank of Eagle Pass, Texas, is reported to have increased its capital from \$75,000 to \$100,000.

The National Bank of Columbus, Ga., is reported to be considering the question of increasing the capital from \$100,000 to \$200,000.

The Third National Bank of Baltimore, Md., will begin operations as a day and night bank on September 4 instead of September 3 as was recently reported.

The conversion of the Southern Maryland Savings Bank of La Platte, Md., into the Southern Maryland National Bank of La Platte with \$25,000 capital has been approved.

Messrs. A. M. Law & Co., dealers in stocks and bonds at Spartanburg, S. C., handle a number of cotton-mill stocks, besides the shares of several other institutions in that locality, and also Spartanburg city and county bonds. Their August circular mentions many of these, and gives quotations for all cotton-mill stocks.

CAPITAL

to invest for clients in
Manufacturing, Railway, Mining, Mercantile or any legitimate propositions.

MONEY LOANED

Entire issues Municipal, County, Manufacturing and Railway Bonds and Stock Bought and Sold.

W. W. Williams & Co.

FIRST NAT'L BANK BLDG.

NASHVILLE, TENN.

Bank of Richmond

RICHMOND, VA.

JOHN SKELTON WILLIAMS, President.
FREDERICK E. NOLTING, 1st Vice-President.
T. K. SANDS, 2nd Vice-President and Cashier.
H. A. WILLIAMS, Asst. Cashier.
L. D. CRENSHAW, Jr., Trust Officer.

In aiding the development of legitimate business enterprises, this bank believes that it performs a required duty, and to this end offers the services of a live, progressive Bank, conservatively managed.

Established 1835.

The Merchants National Bank,

South and Water Streets,
BALTIMORE, MD.

DOUGLAS H. THOMAS, President.
WM. INGLE, Cash. J. C. WANDS, Asst. Cash.
Capital, \$1,500,000
Surplus and Undivided Profits, \$893,000
Deposits, \$10,150,000
Accounts of Banks, Bankers, Corporations and individuals solicited. We invite correspondence.

THE FIRST NATIONAL BANK

OF KEY WEST, FLA.

United States Depository and Disbursing Agent
Capital, \$1,500,000
Surplus and Undivided Profits, \$40,000
A general banking business transacted.
Special attention given to collections.

THE PEOPLES NATIONAL BANK

OF LYNCHBURG, VA.

Capital Stock \$260,000.00 Surplus Fund \$260,000.00
J. W. Ivey, Pres. Jno. D. Langhorne, V-Pres.
Jno. Victor, Cashier.
Accounts of Corporations, Firms and Individuals solicited

Capital \$300,000 Surplus \$200,000

Organized 1867

THE CITIZENS BANK

of Norfolk, Va.

W. W. MOSS, President. TENCH F. TILGHMAN, Cashier.
J. W. PERRY, Vice-President. NORMAN BELL, Jr., Asst. Cashier.
MCD. L. WRENN, Vice-Pres.

Owns and occupies the only absolutely fire-proof building in Norfolk.
Drafts drawn on all parts of the world.
Charter authorizes Trust and Fiduciary Accounts and to act as Receiver, Administrator, Executor, Guardian, Trustee, &c.
Safety Deposit Boxes in the most modern Vaults in Tidewater Virginia.

CAPITAL \$50,000

Citizens Savings Bank

2003 1st Ave., Birmingham, Ala.

WE CONFINE OUR BUSINESS TO SAVINGS ACCOUNTS. TAKE NO TRADE RISKS.

BANK WITH US BY MAIL. PAY 4% INTEREST

J. B. COBBS, President.
H. H. MAYBERRY, V-Pres.
C. G. DAVIDSON, Secretary.
CHAS. M. SPENCER, Treasurer.
E. D. SMITH, Attorney.

MANUFACTURERS AND JOBBERS

Frequently find it necessary to have BANKING FACILITIES in addition to those offered by local banks.

The First National Bank

OF RICHMOND, VA.

With ASSETS OF
SEVEN MILLION DOLLARS

offers just the ADDITIONAL facilities required.

JNO. B. PURCELL, JNO. M. MILLER, Jr.
President. Vice-Pres. and Cashier.

THE FALCONER COMPANY

5 & 7 North Gay Street, Baltimore, Md.

Bank and Commercial Stationers

Printing, Lithographing, Engraving, Steel Die Embossing, Blank Books, Stationery and Office Furniture.

Our Factory is equipped with the most modern machinery and skilled workmen, and we carry a large stock of manufactured goods.

We offer to equip new banks complete, ready to begin business, in ten days from receipt of order.



Our Literature on

Vertical Filing Equipment

furnishes practical suggestions for its use in any and all departments of business, and explains at the same time the mechanical superiority of our own product. Special Catalogue mailed on request. Write for No. 95.

The Globe-Wernicke Co.

CINCINNATI

CHARLES L. HEHL, C. P. A., President.

JOHN KÜCHLER, C. P. A., Vice-President.

CLARENCE R. EVANS, C. P. A., Secretary-Treasurer.

BALTIMORE AUDIT COMPANY

1027-1029 CALVERT BUILDING,
BALTIMORE, MD.

All work executed by or under direct supervision of Certified Public Accountants.
Correspondence invited.

EXAMINATIONS APPRAISALS AUDITS

SHELDON AUDIT COMPANY

Public Accountants and Auditors

Highest Testimonials.
Correspondence Invited.

ATLANTA, GA.

ALBERT KLEYBOLTE & CO.

We Buy and Sell Entire Issues of Municipal Bonds. Correspondence Solicited

409 Walnut Street

CINCINNATI, OHIO

Bank and Office Fixtures and Furniture



Largest variety of Office
Desks, Chairs, Steel Rod
Chairs, Tables, Stools, &c.

Steel Framed Type-
writer Chairs a Specialty.
In Fine Cabinet Woods,
Brass, Bronze, Iron and
Marble.

The A. H. ANDREWS CO.

Also Manufacturers of School
and Church Furniture.

174 and 176 Wabash Avenue, Chicago



Send for Catalogue O

Ads. marked * appear every other week. Ads. marked † appear in first issue of the month. Ads. marked ‡ not in this issue.

XUM

